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RESTRICTED

ONI 208-J Supplement No. 2

FAR-EASTERN SMALL CRAFT

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Contents

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by Ray M. Stroupe
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Capt., Inf

A complete statistical index of all Far-Eastern Small Craft is issued in an accompanying CONFIDENTIAL booklet.

21 APR 1945

CONTENTS

SECTION 1–MINOR COMBATANT VESSELS

2–PASSENGER VESSELS

3–CARGO VESSELS

4–BARGES

4–BARGES—Continued

5–FISHING VESSELS

6–UTILITY VESSELS

7–NATIVE CRAFT

8–INDEX [redacted]

STANDARD CLASSES of JAPANESE MERCHANT SHIPS

Contains drawings, characteristics, and names of merchant vessels being constructed in quantity by the Japanese.

ONI 208-J (Revised)
Supplement 3

May be incorporated in the basic manual provided classification is maintained

Division of Naval Intelligence January 1945

JAPANESE STANDARD MERCHANT SHIP CONSTRUCTION

In the latter part of 1943 and during 1944 a quantity of new and unknown Japanese merchant ships have been observed, many of them radically different in design from the last, modern vessels of the pre-war era. Sufficient numbers of the same type of ship have been noted to permit the formation of definite conclusions as to the amount and character of standardization accomplished in Japanese wartime merchant ship construction. In addition, recent captured documents have listed the types adopted as standard and outlined sufficient characteristics to make possible the identification of individual classes.

Pre-war Construction

The unusual features of these new vessels can best be illustrated by comparison with the character of pre-war shipbuilding in Japan. Prior to 1941, no actual and effective standardization had been accomplished; for, while shipbuilding was subsidized by the government, design was largely determined by the shipping concerns or builders. The nature of Japan's merchant marine activities before the war dictated specifications in ship design which resulted in a standardization of general types as opposed to the adoption of an individual design. This has made possible the formulation of the JMST system of reporting Japanese vessels, a method which recognizes the similarity in characteristics of vessels within a given tonnage range. Freighter design on the whole was concentrated in Diesel-powered ships averaging 6,000 gross tons, with streamlined superstructure amidships, cruiser sterns, and with hulls built for speed. Few engines-aft cargo carriers were constructed outside of the AMAKASU MARU NO. 1 class of 1,900 gross tons, of which about 40 were built before the war. Tanker design tended to 10,000-ton ships with speeds of 17 knots normal cruising and 20 knots maximum—mostly fitted with Diesel engines. It is interesting to note that in the 5 years prior to the outbreak of war approximately 330 ships of over 1,000 tons were built, involving over 100 different classes; 18 of these classes were composed of 5 or more ships, but in only 4 were more than 10 built. At variance with this pre-war record is the tendency in new construction to adopt a few individual designs and to produce as great a quantity of these as construction facilities and possible use of mass production methods will allow.

Wartime Design

With her sea lanes enormously extended soon after the outbreak of war, and with the successful activity of United States submarine patrols becoming obvious, Japan must have foreseen the inroads which would be made upon her supply of merchant vessels. Since approximately 2 years are required to design and initiate construction on standard types of ships, work was apparently begun on the radically new designs early in 1942; for it is believed that they did not begin coming off the ways until the early spring of 1944. Between the fall of 1941 and the start of construction on the new types shipbuilding is thought to have continued along the lines of the older designs; for, of the nine standard classes so far identified, two are almost identical with pre-war design, and two, although never before observed, show no radical change in design characteristics. It should also be remembered that between 7 December 1941, and 1 July 1944, approximately 125 ships of non-standard construction totaling 430,000 gross tons have been built. Construction of vessels of individual design will undoubtedly continue, to a limited extent, in the future.

In the preparation of designs for new ships, especially standard designs from which vessels are to be built in quantity, consideration must be given the requirements of the ship itself, such as speed, cargo capacity, range, etc., and the wartime facilities for construction including speed of construction, availability of various types of engines, facilities for casting or forging parts, and the like. In the new Japanese designs, cargo capacity and speed of construction have been given paramount consideration at a considerable sacrifice in the speed of the ships themselves.

A glance at the drawings included in the discussion of individual types which follows will show the emphasis which has been placed on *engines-aft design*.

All but two of the standard classes so far identified are of engines-aft construction. While this is a logical type for economical operation, it may also indicate a shortage of facilities for forging the longer propeller shafts needed in vessels with engines amidship.

Typical of the new hull design is its *angularity* and its *broad beam in relation to length.* The latter is particularly apparent when compared with vessels of the pre-war period, and again is an indication of the need for large carrying capacity at a sacrifice in speed. The hull shape suggests the adoption of flat as opposed to curved surfaces throughout the vessel, which increase the rapidity and ease of construction, even by inexperienced builders. This design can easily be noted in the photograph which accompanies the description of Type E being mass-produced at Wakamatsu. In the discussion of individual types which follows, the word "economy" has been adopted as descriptive of this shape of hull.

It is interesting to note that in all cases where captured statistical data can be ascribed with relative certainty to observed design, the term "Modified" has applied to vessels with "economy" hull shapes. Cruising speeds specified for the various types are a further indication, since those for the regular types are consistently 2 to 3 knots higher than those for the Modified classes. From this it may be assumed that the designs for Types A, B, C, D, E, TL, TM, and TS are of normal construction. Designs with economy hulls have been identified for Type A (Modified), D (Modified), E (Modified), and TM (Modified). Additional "economy" designs have been observed which closely approximate most specifications for Types B and TS. These are, in all probability, later modifications which were either in the experimental stage or not as yet adopted at the time the captured statistics were issued by the Japanese.

The general *use of steam turbine and reciprocating engines* instead of Diesel, which were in common use before the war, is another noteworthy feature of the standard types. In all probability this indicates a shortage of facilities for building the more complicated Diesel engine, and also denotes foresight on the part of the Japanese in that they may in the future be forced to depend on coal rather than oil for fuel. Among the standard types, Diesels are being used only in vessels under 1,000 gross tons (Types E and F).

Individual Types

The standard types outlined on the following pages include profile drawings and photographs where they can be assigned, notes on distinctive features which will lead to rapid identification, all known statistical information, and, where possible, names of vessels belonging to the class. Some of the types have not, as yet, been identified; it is possible that certain of the classes, such as Type A (Cargo) and TL (Tanker) were never placed in quantity production. Several of the profiles have been drawn from vertical photographs only and should be considered tentative. Note also that ship names listed for standard types include vessels built up to 1 July 1944, and have been selected from known construction on the basis of types, tonnage, and year built. Their assignment, therefore, should not be considered positive. In addition to the statistical data included under each type, all classes above 1,000 gross tons are believed to carry four depth charges. Profile drawings have been graded A, B, C, and D to indicate their evaluated accuracy.

This summary has been prepared by the Division of Naval Intelligence. Extensive use has been made of "Weekly Intelligence" Bulletin No. 12 published by CINCPAC–CINCPOA, and of Shipping Report No. 11 prepared by the Shipping Center, U. S. Naval Unit, 14th Air Force.

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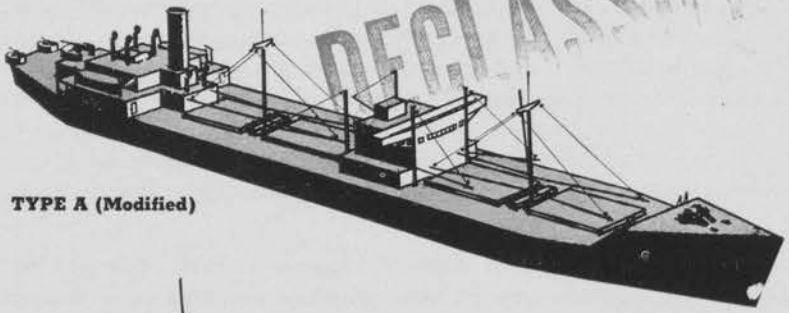

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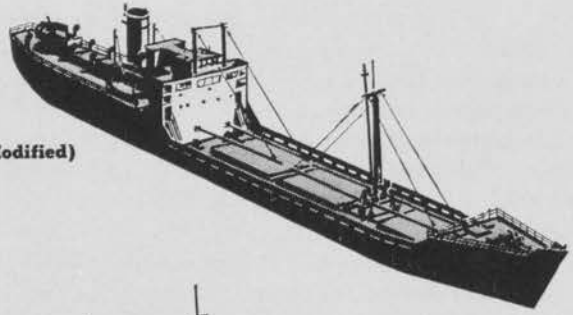

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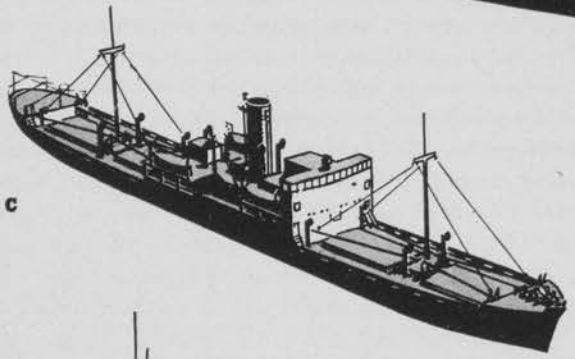

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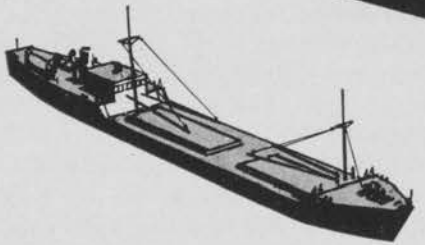

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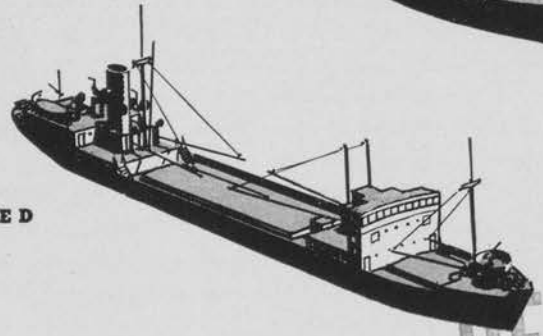

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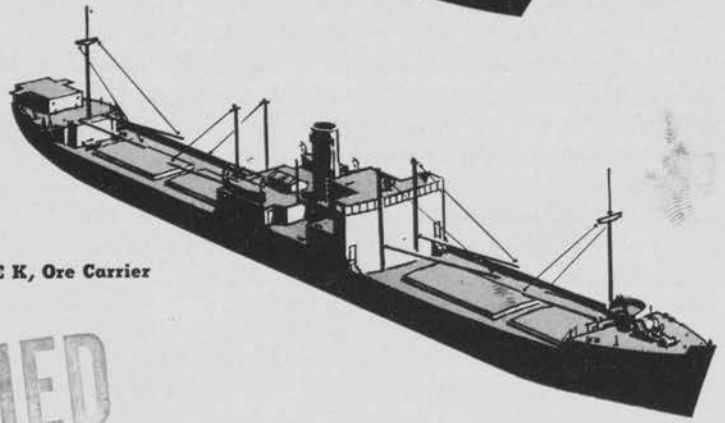
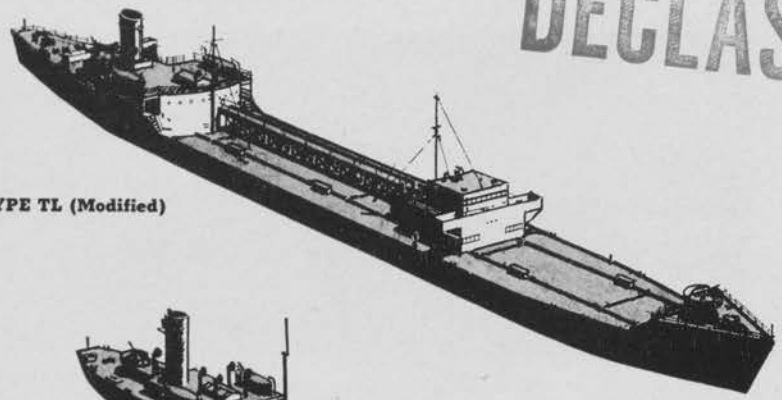
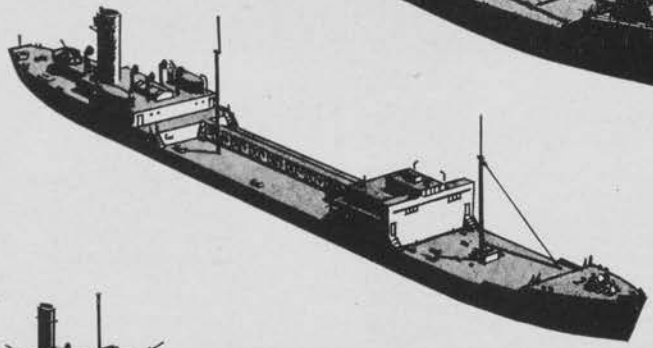


TYPE K, Ore Carrier

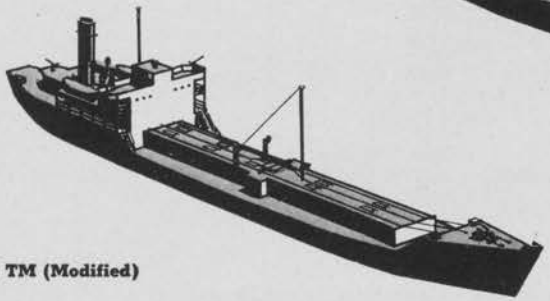
STANDARD CLASSES OF JAPANESE MERCHANT SHIPS



TYPE TL (Modified)



TYPE TM



TYPE TM (Modified)

TYPE A (Modified) ..... Sugar Baker Love
Gross tonnage: 6,670
Length, o. a.: 445′
Beam: 64′

TYPE C ..... Fox Tare Charlie
Gross tonnage: 2,700
Length, o. a.: 321′
Beam: 45′

TYPE D..... Sugar Baker Sugar
Gross tonnage: 1,900
Length, o. a.: 295′
Beam: 44′

TYPE D (Modified)..... Sugar Charlie Love
Gross tonnage: 2,300
Length, o. a.: 310′
Beam: 49′

TYPE E..... Sugar Charlie Sugar
Gross tonnage: 830
Length, o. a.: 210′
Beam: 36′

TYPE K, Ore Carrier..... Fox Tare Charlie
Gross tonnage: 5,300
Length, o. a.: 410′
Beam: 59′

TYPE TL (Modified)..... Sugar Able Love
Gross tonnage: 10,000
Length, o. a.: 517′
Beam: 67′

TYPE TM ..... Sugar Able Item
Gross tonnage: 5,200
Length, o. a.: 410′
Beam: 59′

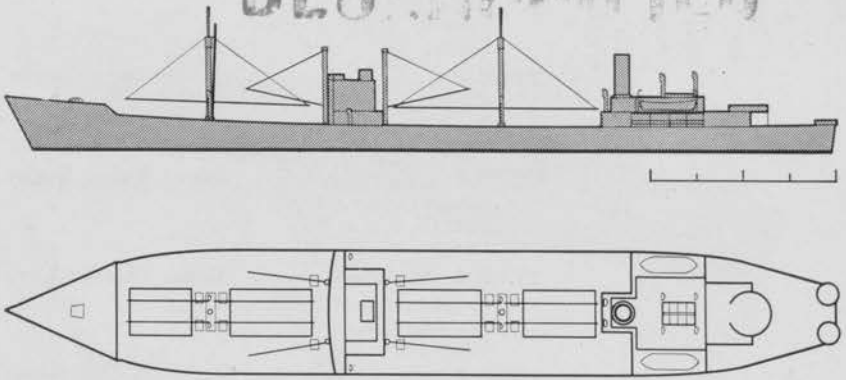
TYPE TM (Modified)..... Sugar Able Sugar
Gross tonnage: 2,800
Length, o. a.: 325′
Beam: 50′

TYPE A (Modified)

Sugar Baker Love

45-MKKMF

B



Large engines-aft cargo vessel with pronounced "economy" hull. Note kingposts against bridge which is located almost amidships, small stack, and heavy stick masts centered in fore and after wells. One observed variation has wide cargo hatches extending three-fourths the beam of the ship. Ships of this class are under construction at Tokyo and have been observed being built near Nagasaki. No prefabrication of hull sections is apparent. Jap Merchant Ship Card No. S 1007.

TYPE A (Modified)

Gross tonnage:	6,670	Speed, normal cr.:	10 kts.
Disp. tonnage loaded:	9,720	Machinery:	Steam turbine
Length, o. a.:	445′	SHP:	2,500 (oil)
Beam:	64′		2,000 (coal)
Draft, loaded:	25.5′	Cargo booms:	Twelve 5-ton
			One 30-ton

▲ Type A (Modified)

Approximately 24 Type A and A (Modified) had been built by July 1944. The following are believed to belong to one of these classes:

Batopaha Maru	5953	Oigawa Maru	6493
Getsuyo Maru	6440	Taiten Maru	6442
Koyo Maru	6435	Tatebu Maru	6816
Kyokuzan Maru	6300	Tatsunan Maru	6417
Mitsuki Maru	6440	Tatsu-ura Maru	6420
Nichiyo Maru	6300	Uyo Maru	6376
Nichizui Maru	6584	Yosan Maru	6487
Nikkyu Maru	6529	Yosho Maru	6300
Nissho Maru	6008	Yowa Maru	6435
Nisshun Maru	6380	Yuzan Maru	6380

TYPE A

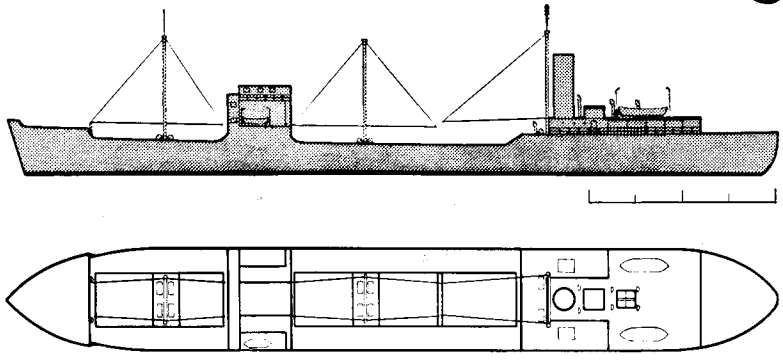
Gross tonnage:	6,400	Speed, normal cr.:	12 kts.
Disp. tonnage loaded:	9,300	Machinery:	Reciprocating
Length, o. a.:	445′(?)	IHP:	3,300
Beam:	58′	Cargo booms:	Eight 10-ton
Draft, loaded:	25.5′		Eight 15-ton
			Two 25-ton

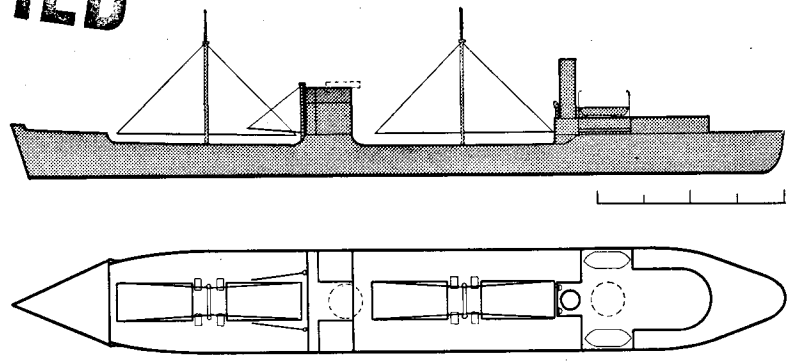
NOTE.—Early reports indicated use of steam turbine and Diesel engines in this class.

TYPE B

Sugar Baker Love

B





Approximately 30 ships of the class are believed to have been built, including the following, some of which are possibly of engines amidship construction.

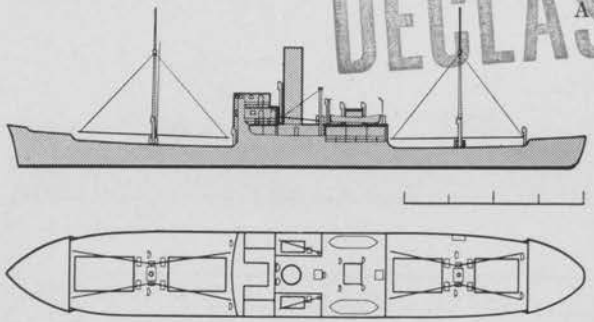
Anbo Maru	4,523	Sankisan Maru	4,776
Bichu Maru	4,667	Shiranesan Maru	4,739
Bizen Maru	4,667	Shiroganesan Maru	4,739
Chiyo Maru	4,700	Shoun Maru	4,399
Fujishima Maru	4,930	Shoyu Maru	4,408
Kokuyo Maru	4,667	Tatebe Maru	4,519
Konan Maru #1	4,558	Toyu Maru	4,532
Naruo Maru	4,823	Yamamiya Maru	4,440
Sainei Maru	4,916	Yukigawa Maru	4,502

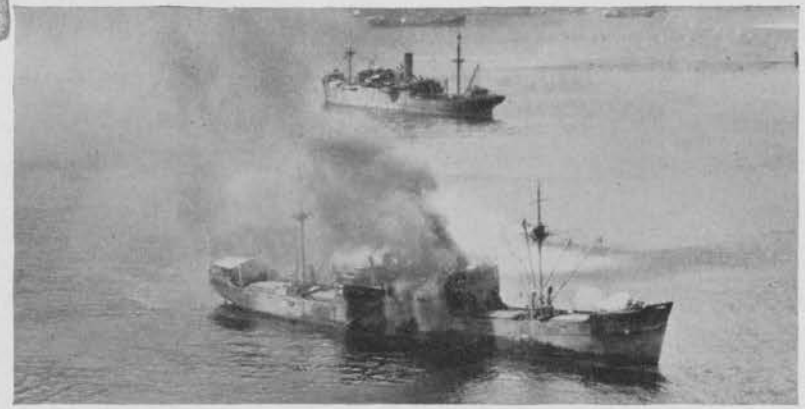
Two new ships, one with a pronounced angular hull shape, fall within the probable length range for this class. No other sightings have been observed.

Gross tonnage:	4,400	Speed, normal cr.:	12 kts.
Disp. tonnage loaded:	7,100	Machinery:	Steam turbine
Length, o. a.:	410′ (approx.)	SHP:	2,400
Beam:	--	Cargo booms:	Six 5-ton
Draft, loaded:	24.3′		Four 10-ton
			One 30-ton

TYPE C **23-MFM**

Fox Tare Charlie



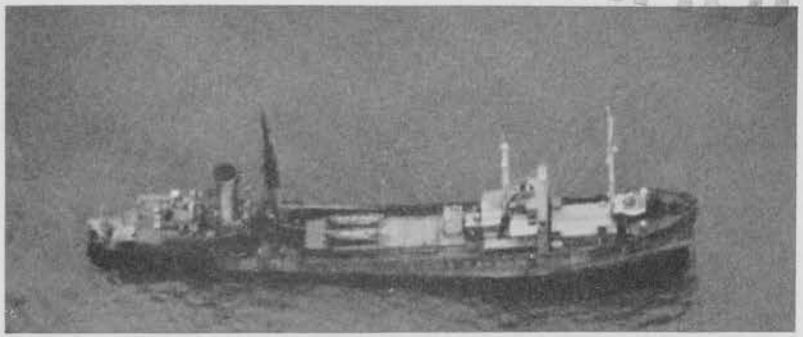


This engines-amidship freighter is closely similar to the AKAGANE MARU and the ANSHU MARU classes shown on pp. 104–5 of ONI 208–J (Revised). Note superstructure slightly aft of amidships, mast centered in fore and after wells, and stack close to bridge. Variations may appear with goal-post masts. Identification of this class has been based on the large number produced before the war, tonnage, length, and the fact that the number of cargo booms correspond with captured statistics. Assignment of this design should not be considered positive.

Gross tonnage:	2,700	Machinery:	Reciprocating
Disp. tonnage loaded:	4,300	Screws:	1
Length, o. a.:	321′(?)	IHP:	1,800
Beam:	45′	Fuel:	Coal
Draft, loaded:	20.7′	Cargo booms:	Two 2-ton
light:	7′–8′		Four 5-ton
Speed, normal cr.:	11 kts.		Four 10-ton
maximum:	13 kts.		One 20-ton

Approximately 30 are believed to have been built between 1941 and 1 July 1944.

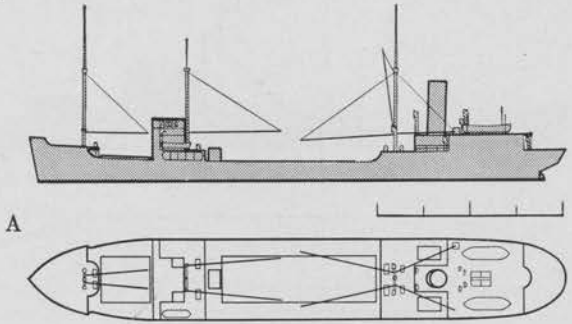
Aiyo Maru	2,746	Nikkoku Maru	2,728
Atsuta Maru	2,750	Nittei Maru	2,728
Dai-Akita Maru	2,704	Ryuko Maru	2,764
Daiho Maru	2,720	Shinkoku Maru	2,746
Hagikawa Maru	2,800	Shoei Maru	2,764
Hisajima Maru	2,742	Taishi Maru	2,800
Inari Maru	2,759	Tamon Maru #8	2,750
Kaito Maru	2,745	Tattai Maru	2,800
Masajima Maru	2,742	Unkai Maru #12	2,745
Meiwa Maru	2,721	Wayo Maru	2,726
Mutsuyo Maru	2,726	Yutaka Maru	2,704
Nichinan Maru	2,732	Zuikai Maru	2,700



46–MKMF

TYPE D

Sugar Baker Sugar



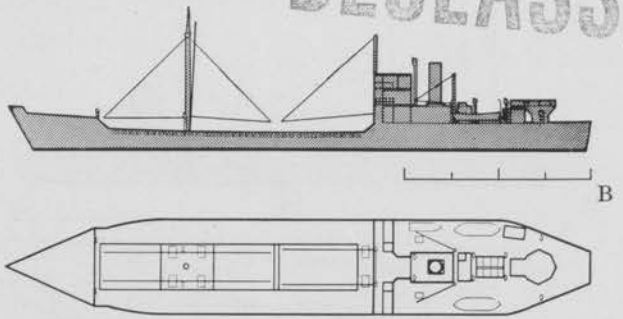
This type is the AMAKASU MARU NO. 1 class, shown on page 270 of ONI 208–J (Revised), some 40 of which were built before the war. The engines-aft design with bridge well forward, masts at forecastle and poop, and kingposts on the bridge, are characteristic features.

Gross tonnage:	1,900	Constructed:	1936–1944
Disp. tonnage loaded:	2,850	Machinery:	Reciprocating
Length, o. a.:	295′	Screws:	1
b. p.:	271′–273′	IHP:	1,100
Beam:	40′–44′	Fuel:	Coal
Draft, loaded:	17.5′	Cargo booms:	Two 3-ton
light:	7′		Four 8-ton
Speed, normal cr.:	10.5 kts.		Two 10-ton
maximum:	13 kts.		One 30-ton

It has been impossible to separate the ships of this type from those in the D (Modified) category; for this reason a combined list of ships in both types is included on the following page.

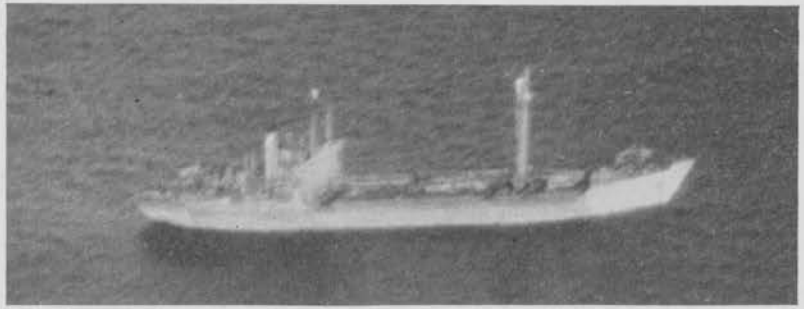
TYPE D (Modified) **47-MKF**

Sugar Charlie Love



Slightly longer than the Type D, this ship retains the engines-aft design, but adopts the "economy" hull typical of new Japanese construction. Note the long superstructure with bridge, aft with closely-spaced stack, kingpost at forward edge of bridge, and stick mast far forward in the well but not on forecastle. This type has been observed under construction at Fusan, Korea. Jap Merchant Ship Card No. S 1008.

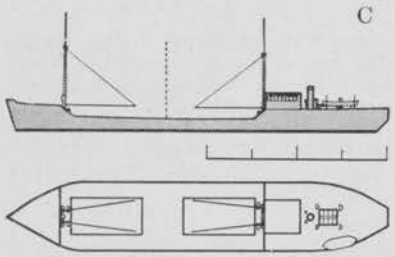
Gross tonnage:	2,300	Speed, normal cr.:	9 kts.
Disp. tonnage loaded:	3,870	Machinery:	Reciprocating
Length, o. a.:	310′–315′	IHP:	900
Beam:	49′	Cargo booms:	Eight 5-ton
Draft, loaded:	19.2′		One 30-ton



Approximately 80 of Types D and D (Modified) have been built since the start of the war.

Akeshima Maru	1,993	Nissho Maru #18	1,990
Asayama Maru	1,917	Otori Maru	2,105
Bunzan Maru	1,990	Reian Maru	1,936
Busan Maru	1,990	Seika Maru	2,087
Chinsai Maru	1,999	Shinwa Maru	1,915
Chuyo Maru	1,900	Shinyo Maru #8	1,959
Daigen Maru #10	2,110	Shobu Maru	2,005
Dowa Maru	1,916	Shojin Maru	1,942
Fuyo Maru	1,900	Shoryu Maru	1,916
Gyokusan Maru	1,970	Sugi Maru #5	1,983
Hachijin Maru	1,918	Taichu Maru	1,906
Hachirogata Maru	1,999	Tainan Maru	1,989
Heiwa Maru	1,958	Tairin Maru	1,920
Hinode Maru	1,916	Taisei Maru	1,948
Hoshi Maru #11	1,944	Taisei Maru	1,957
Imaji Maru	1,986	Tatsuju Maru	1,944
Kaika Maru	2,087	Tatsutagawa Maru	1,923
Kennichi Maru	1,938	Temposan Maru	1,970
Kiyokawa Maru	1,990	Tetsuyo Maru	2,130
Kizugawa Maru	1,915	Toan Maru	1,990
Kosei Maru	1,920	Toshin Maru	1,953
Kyowa Maru	1,915	Toun Maru	1,915
Matsutan Maru	1,999	Toyama Maru	1,972
Miyashima Maru	2,000	Toyo Maru	1,916
Narita Maru	1,915	Ujina Maru	2,218

47-MMF



TYPE E-1 (Modified)

Gross tonnage:	860
Disp. tonnage loaded:	1,636
Length, o. a.:	210′
Beam:	36′
Draft, loaded:	14.7′
Speed, normal cr.:	7 kts.
Machinery:	Diesel
Screws:	1
SHP:	370–430
Cargo booms:	Four 3 ton

TYPE E

Gross tonnage:	830
Disp. tonnage loaded:	1,270
Length, o. a.:	-----
Beam:	-----
Draft, loaded:	14.7′
Speed, normal cr.:	10 kts.
Machinery:	Diesel
Screws:	1
SHP:	750
Cargo booms:	Three 3-ton Two 5-ton

Numerous variations appear in this small ore carrier and general cargo ship, which is being mass-produced at Wakamatsu and near Nagasaki. Differences occur in superstructure, bridge, hull shape, and masts and kingposts. The 210′ vessel, with small funnel indicating the use of diesel motors and without the center-kingpost, is believed to be the E-1 (Modified) version. It is probable that the basic Type E is not of "economy" design and may be of engine amidship construction. While the range of these ships is believed to be small, large numbers have been observed as far south as Takao and Manila. Approximately 200 ships of the Type E class have been built.

TYPE F

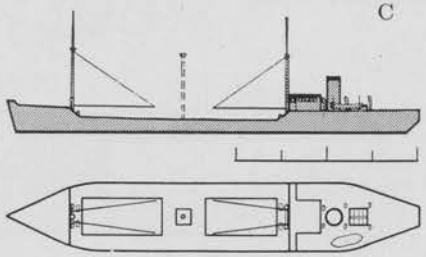
Appearance of this class is closely similar to that of the Type E, but sightings have been so indistinct as to prohibit detailed drawings. Eighteen or 20 are reported to have been built at Hong Kong.

Gross tonnage:	495	Speed, normal cr.:	10 kts.
Disp. tonnage loaded:	730	Machinery:	Diesel
Length, o. a.:	--	SHP:	600
Beam:	--	Cargo booms:	Four 5-ton
Draft, loaded:	12.5′		

Stern construction, Type E (Modified) ▶

TYPE E, E (Modified)

Sugar Charlie Sugar

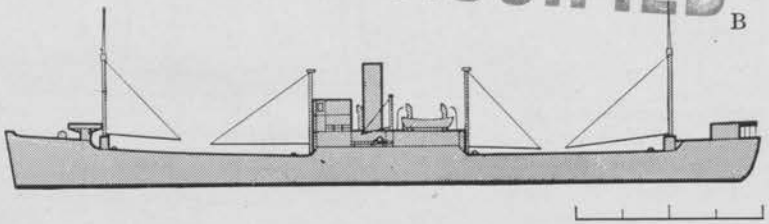


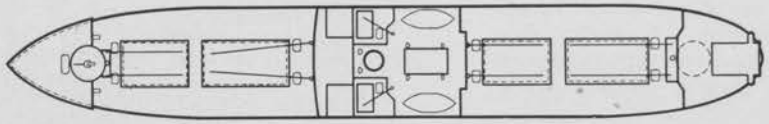
TYPE E-2 (Modified)

Gross tonnage:	880
Disp. tonnage loaded:	1,586
Length, o. a.:	226′ (approx.)
Beam:	36′ (approx.)
Draft, loaded:	14.7′
Speed, normal cr.:	7 kts.
Machinery:	Reciprocating
Screws:	1
IHP:	400

TYPE K Ore Carrier — **23-MKFKM**

Fox Tare Charlie



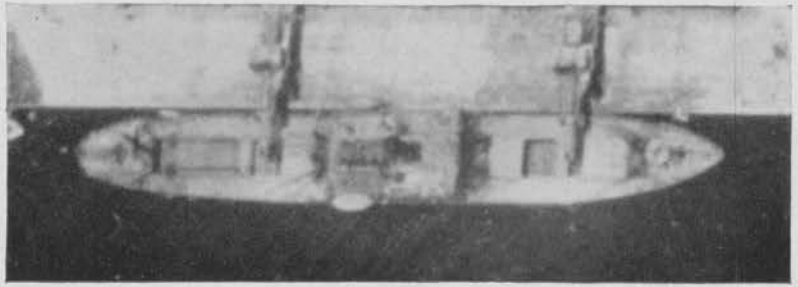


Gross tonnage:	5,300	Speed, normal cr.:	10.5 kts.
Disp. tonnage loaded:	7,900	Machinery:	Reciprocating
Length, o. a.:	410′	IHP:	2,100
Beam:	59′	Cargo booms:	Two 2-ton
Draft, loaded:	24.5′		Eight 5-ton

Approximately 30 constructed.

Akama Maru	5,600	Kazan Maru	5,333
Daizen Maru	5,396	Kokko Maru	5,486
Gyokurei Maru	5,588	Meisan Maru	5,480
Hakuyo Maru	5,742	Nichirei Maru	5,396
Heiwa Maru	5,578	Nikkyo Maru	5,484
Hida Maru	5,320	Seinan Maru	5,401
Hidaka Maru	5,486	Shonan Maru	5,401
Higane Maru	5,320	Tainan Maru	5,407
Hioki Maru	5,320	Takashima Maru	5,633
Hiwa Maru	5,320	Tatsubato Maru	5,396
Honan Maru	5,401	Tennan Maru	5,407
Horei Maru	5,588		

This class, with the medium tanker, Type TM, represents the first standardization for wartime construction. The two classes of vessels are almost identical in length, beam, and hull shape. Distinctive features of the Ore Carrier are its engines-amidship design, with kingposts against the superstructure, and masts against the poop and forecastle. Occasionally ships may appear with a single kingpost instead of mast forward and a topmast on the kingpost against the bridge. Jap Merchant Ship Card Nos. FT 1010 FT 1015, FT 1023 (similar).

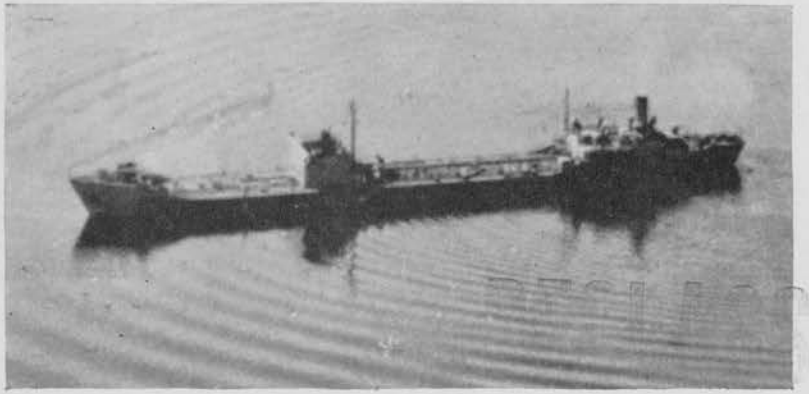


TYPE TL

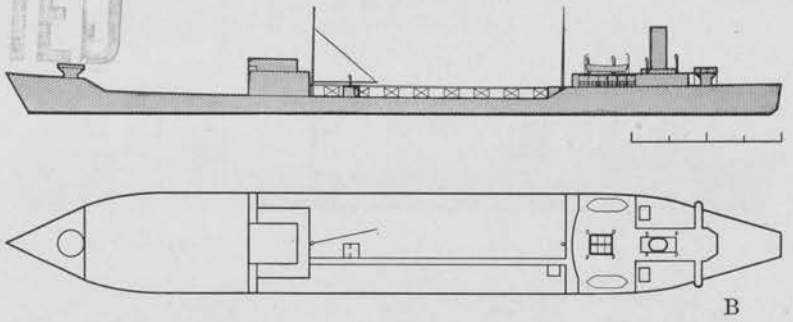
Design unknown, but probably closely similar to the AKATSUKI MARU, GENYO MARU, KOYOKUTO MARU, and OMUROSAN MARU classes of tankers built from 1937 to 1939.

Gross tonnage:	10,000
Disp. tonnage loaded:	14,500
Draft, loaded:	29.7′
Length, o. a.:	--
Beam:	--
Speed, normal cr.:	16.5 kts.
Machinery:	Steam turbine
SHP:	9,500
Cargo booms:	One 2-ton Five 3-ton
Capacity:	105,000 bbls.

▼ TL (Modified)



Sugar Able Love



B

TYPE TL (Modified)

Characteristics of this tanker are its prominent "economy" hull shape, long, almost pointed stern, and absence of catwalk forward of bridge. Note the location of foremast, which is peculiar to this class alone.

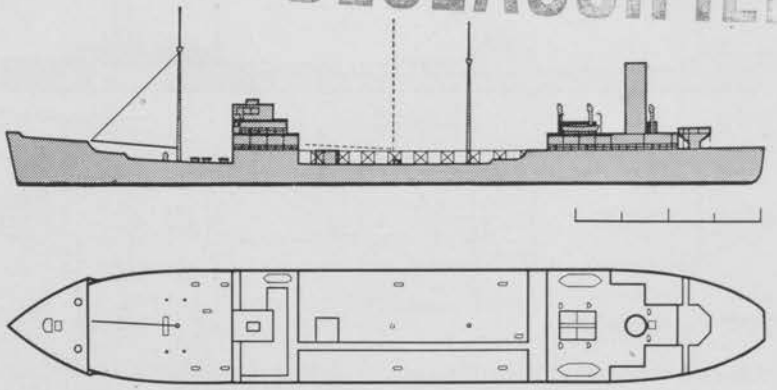
Gross tonnage:	10,000	Speed, normal cr.:	13 kts.
Disp. tonnage loaded:	14,500	Machinery:	Steam turbine
Length, o. a.:	517	SHP:	5,000
Beam:	67′	Cargo booms:	One 2-ton
Draft, loaded:	29.7′	Capacity:	105,000 bbls.

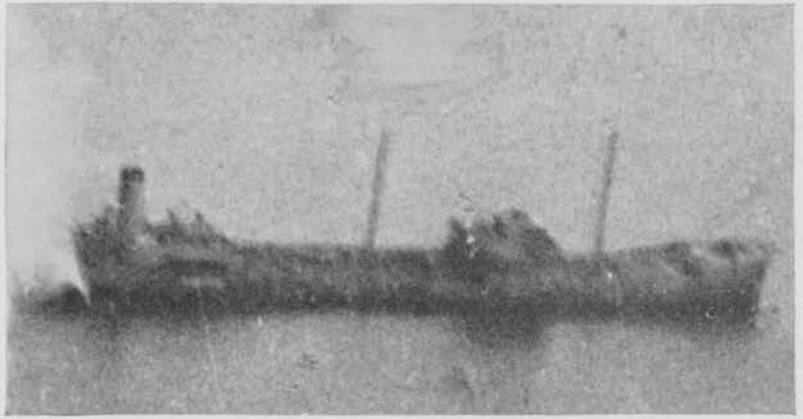
Approximately 12–15 of the Type TL and TL (Modified) had been built by 1 July 1944.

Amatsu Maru	10,567
Kyokuei Maru	10,570
Kyuei Maru	10,171
Mirii Maru	10,564
Nanpo Maru	10,033
Okigawa Maru	10,043

TYPE TM **55-MMF**

Sugar Able Item





Closely similar to the Ore Carrier (Type K) in length and beam, this tanker has been produced in quantity. It will generally appear without catwalk forward of the bridge, but on occasion this has been observed. Variations in superstructure may occur. Jap Merchant Ship Card Nos. S 1005, S 1004 (catwalk forward).

Gross tonnage:	5,200	Speed, normal cr.:	12.5 kts.
Disp. tonnage loaded:	7,000	Machinery:	Steam turbine
Length, o. a.:	410′	SHP:	3,600
Beam:	59′	Cargo booms:	Two 2-ton
Draft, loaded:	24′	Capacity:	54,000 bbls.

Approximately 40 had been built by 1 July 1944.

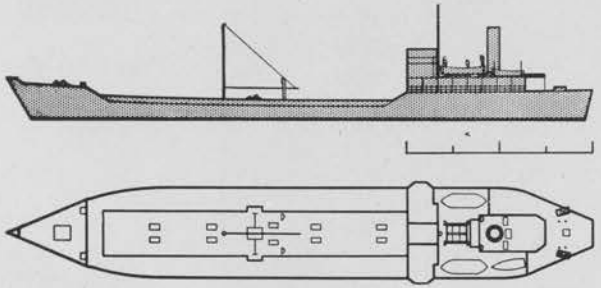
Asashio Maru	5,111	Ryuei Maru	5,144
Bokuei Maru	5,135	Sarawak Maru	5,135
Eiho Maru	5,068	Seishin Maru	5,240
Ichiyo Maru	5,106	Tarakan Maru	5,135
Kokuei Maru	5,154	Yamamizu Maru	5,154
Nichinan Maru	5,175	Yamamizu Maru #2	5,154
Nichirin Maru	5,163	Yamamizu Maru #3	5,244
Ogurasan Maru	5,069	Yuho Maru	5,226
Otorisan Maru	5,280	Zuiho Maru	5 135
Palembang Maru	5,236		

47-MMF

TYPE TM (Modified)

Sugar Able Sugar

B



This small tanker is closely similar to Type D (Modified) and, at a distance, distinction between the two classes will be difficult. Characteristic features of the tanker, however, are the trunked deck, short superstructure, stack well aft of bridge, slender foremast almost amidships, and thin mainmast at after edge of bridge. Observers should also keep in mind that the tanker will lack the many heavy booms characteristic of cargo vessels. Distinction between TM (Modified) and the TS types on page 14 will also be difficult, since the few distinguishing features are apparent only on close observation.

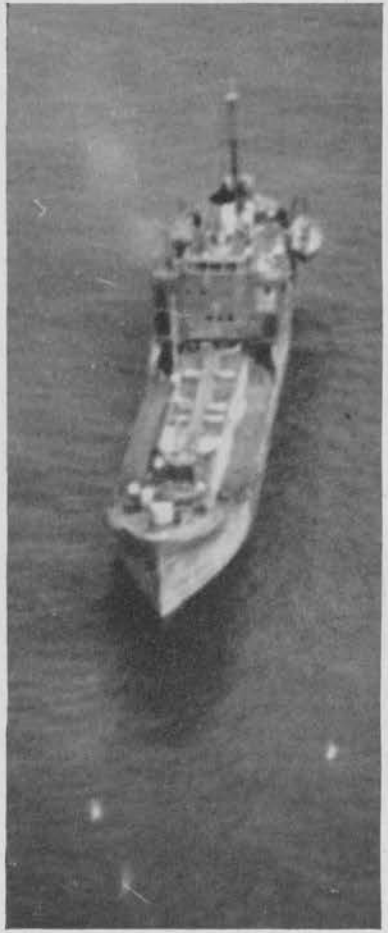
Gross tonnage:	2,800	Speed, normal cr.:	8 kts.
Disp. tonnage loaded:	4,300	Machinery:	Reciprocating
Length, o. a.:	325′ (approx.)	IHP:	1,100
Beam:	50′ (approx.)	Cargo booms:	One 2-ton
Draft, loaded:	19.7′	Capacity:	28,000 bbls.

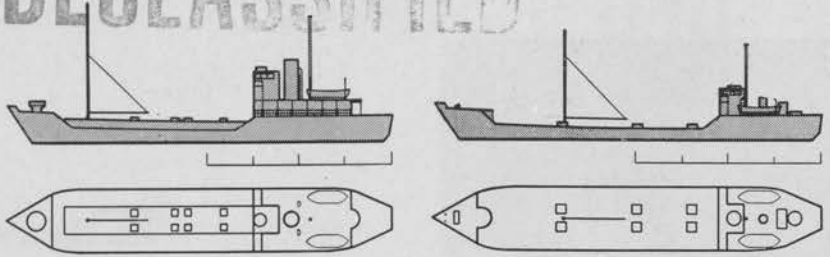
Approximately 12 have been built, four of which are listed below—

Kanetsu Maru	2,867	Toka Maru	2,759
Nittatsu Maru	2,859	Ukai Maru #5	2,841

TYPE TS, Sugar Able Sugar

47-MMF





Two versions of small tankers with "economy" hull designs have been observed in quantity, both closely similar to the Type E, Cargo, in dimensions and in general design features. The trunked deck version, since it burns coal (note large stack), more nearly fits the given specifications for the TS Type, while the second design is, in all probability, a later modification. However, in most cases so far identified, use of the "economy" hull design has been indicated by the term "Modified". Moreover, both types shown here are more nearly of 850 than 1000 gross tons, which is the captured figure for the TS vessel. There is a strong possibility, therefore, that the designation TS belongs to a design at present unidentified and of which few were produced, and that both versions illustrated here are later adaptations. Classification for both drawings of Type TS is B.

Gross tonnage:	1,000	Speed, normal cr.:	10 kts.
Disp. tonnage loaded:	1,250	Machinery:	Reciprocating
Length, o. a.:	210′(?)	IHP:	950
Beam:	33.5′(?)	Cargo booms:	One 1-ton
Draft, loaded:	15.5′	Capacity:	11,000 bbls.

Approximately 20–25 have been built including the following units—

Koryu Maru	974	Kyoei Maru #6	1,178
Koshin Maru	975	Kyoei Maru #7	1,160
Kotai Maru	975	Kyoryoku Maru	1,009
Kyoei Maru #3	1,189	Shonan Maru	1,029
Kyoei Maru #5	1,186	Takasago Maru	1,116

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ONI 208-J Supplement 2 • ISSUED 3/45
Division of Naval Intelligence

FAR-EASTERN SMALL CRAFT
ONI 208-J Supplement No. 2

INTRODUCTION

This manual has been prepared in response to increasing requests from fleet and aerial intelligence echelons for detailed information regarding *all* Far-Eastern small craft.

It was designed in such a way that it would supplement the basic manuals on Japanese merchant ships (ONI 208–J) and the Japanese Navy, thus completing the entire graphic and statistical presentation of all Japanese shipping.

In order that this information can be made available to all personnel concerned, the appearance and general characteristics of small craft is issued in a RESTRICTED booklet. Accompanying this is a CONFIDENTIAL statistical index for the use of intelligence officers. If these two sections are combined,the higher classification is to be maintained.

In studying this manual, these points should be remembered:

——Small craft are being built and used in ever-increasing numbers for both supply and naval operations.

——They are the main carriers for Japan's food staples; rice and fish.

——They represent the majority of all inter-island, coastal, and inshore shipping.

——Each individual unit is a potential patrol vessel, forming a comprehensive network for combating and reporting submarine, air, and surface movements.

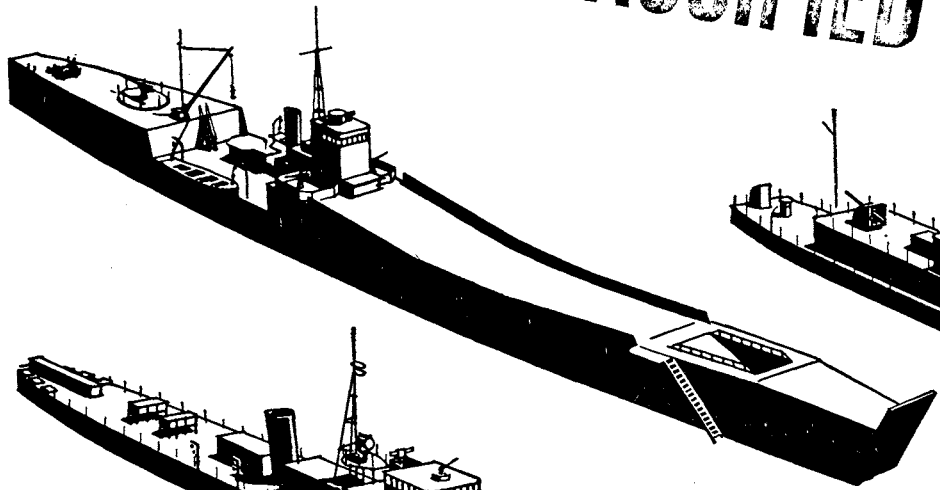
Any small craft observed in Japanese waters can be identified as one of the categories or types shown in this book, and many of the larger vessels will be identified individually by photographs, drawings, or statistics.

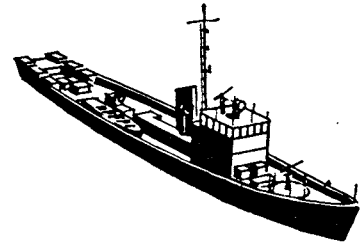
Detailed reports emphasizing certain phases of this shipping have been issued and will be furnished upon request.

The completeness of this manual was made possible by the skillful aid of the representatives of the Photographic Intelligence Center, who so generously cooperated in its preparation.

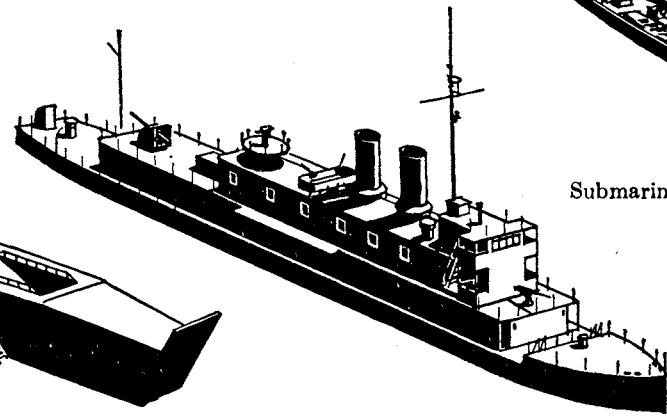
U. S. GOVERNMENT PRINTING OFFICE 16—43566-1

MINOR COMBATANT VESSELS

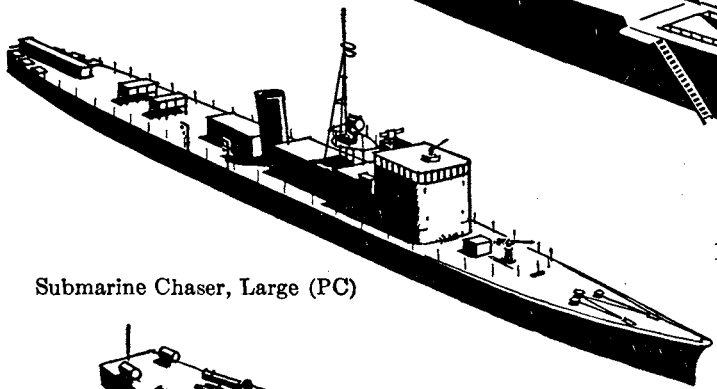




Submarine Chaser, Small (SCS)

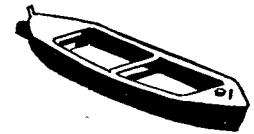


River Gunboat (PR)

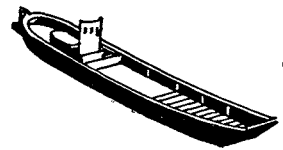


LST "HA" Class

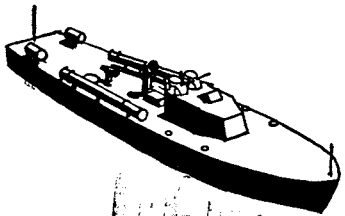
Submarine Chaser, Large (PC)

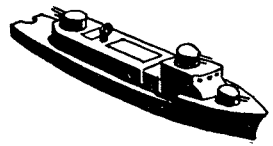


Type "I", Wooden Lighter



Type "A", Landing Craft





Type "C", Armored Boat

Motor Torpedo Boat (PT)

MINOR COMBATANT VESSELS

This section presents the other side of the small-craft picture; that is, the naval vessels engaged in duties also performed by commercial types.

In general, this includes all naval combatant vessels under 400 tons (standard), which are grouped in this section as follows:

Submarine chasers—Large (PC) and small (SCS).
Motor-torpedo boats—Torpedo Boats (PT) and Anti-PT Boats (Hayabusa).
River gunboats—Captured Allied and Japanese types (PR).
Landing ships—Tank landing ships (LST)
Landing craft—All types of personnel and vehicle landing craft.

In addition, a revised grouping of all minor combatant types is included. This supersedes the design list published in the Statistical Summary of the Japanese Navy.

A typical small-craft interpretation problem is found in this recco photo of OKINAWA (in the Ryukyus), taken during October 1944. This maze of small craft includes a large PC, landing craft types "A," "Super-A," "D," and "H," type "X" fuel barge, seagoing tug, sea-trucks, luggers, small fishing vessels, motor launches, a floating crane, and miscellaneous harbor scows and lighters.

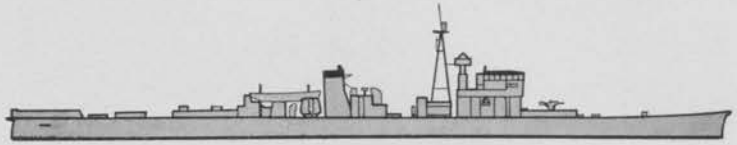
PC—SUBMARINE CHASERS

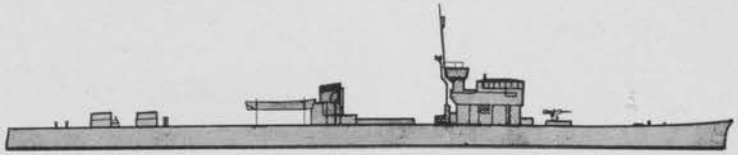
PC 1 CLASS (PC 1–12)

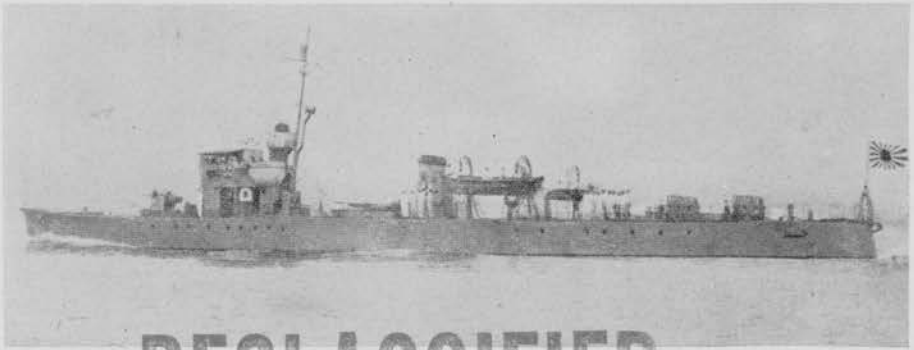
This is the oldest type still in operation. Hull is a combination of steel and wood construction.

COMPLETED—1933–34.
DISPLACEMENT—300 tons (standard).
DIMENSIONS—213′ (o. a.) x 19′ x 5′ (max.).
SPEED—24 knots (des.).
DRIVE —Diesel; 3,400 hp.
COMPLEMENT—45 officers and men.

Armament on this type varies; main battery may be 3″ or less; an undisclosed number of automatic machine guns, mines, and depth charges may be carried.

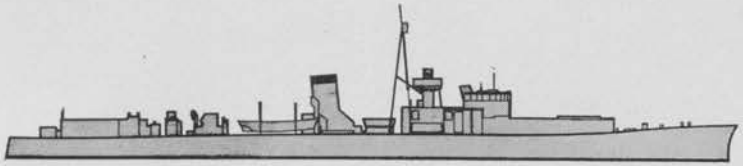






PC—SUBMARINE CHASERS

PC 4 (variation in the PC 1 Class)

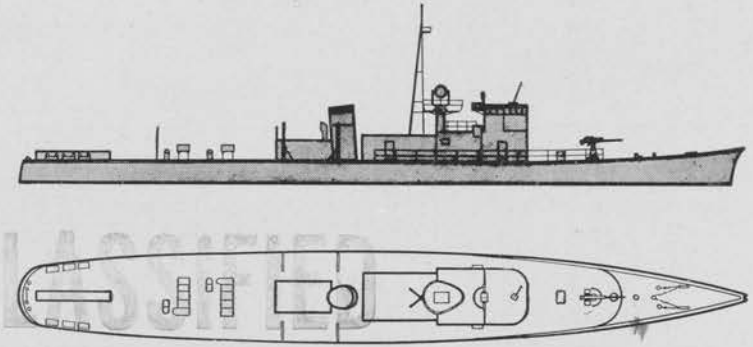


COMPLETED—1937–39.
DISPLACEMENT—270 tons (standard).
DIMENSIONS—178′ (o. a.) x 18′2″ x 6′6″ (max.).
SPEED—20 knots (des.).
DRIVE—Diesel; 2,600 hp.

PC 13 CLASS (PC 13–63; 67; 109; 116)

The standard wartime design; may still be building. This class includes "screening subchasers" formerly listed as the PC 50 Class.

COMPLETED—1941–
DISPLACEMENT—300 tons (standard).
DIMENSIONS—200′ (o. a.) x 24′ x ?.
SPEED—20 knots (max.).



SCS—SUBMARINE CHASERS (SMALL)

SCS 1 CLASS (SCS 1–100, 151–177)

Called "Special Duty Subchasers" by the Japanese, these wooden craft have been mass-produced (3 months per unit) to serve as standard coastal antisubmarine escorts.

COMPLETED—1941–

DISPLACEMENT—100 tons (standard).

DIMENSIONS—97′ (o. a.) x 19′ x 6′6″.

ARMAMENT—One or two 25-mm., 13-mm., or 7.7-mm. AAMG; 18 depth charges, 8 D. C. releases.

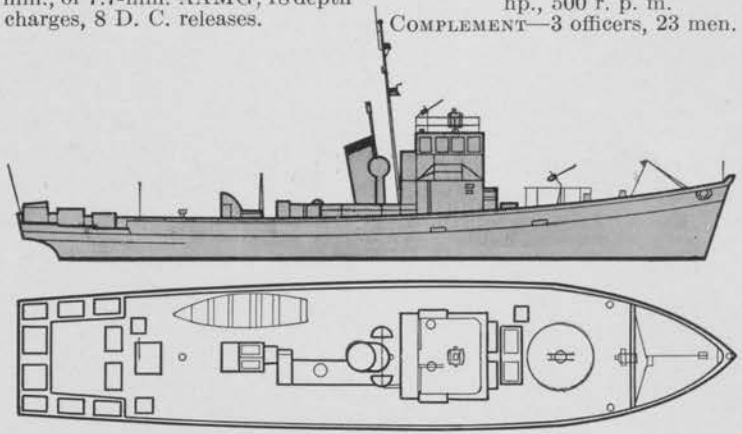
EQUIPMENT—"KE" type hydrophone; two-way radio.

SPEED—10 knots (max.).

ENDURANCE—1,500 miles at econ. speed.

DRIVE—Single 6-cylinder Diesel; 400 hp., 500 r. p. m.

COMPLEMENT—3 officers, 23 men.



SCS 101 CLASS (SCS 101–117)

Eighteen Netherlands Navy patrol craft were reported captured at Soerabaja and assigned SCS 101–117 numbers by the Japanese.

Six of these units (ex AROE, BANTAM (now SCS 117), BOEROE BOGOR, CERAM, CHERIBON, and DIGOEL) were built in 1937 to the following specifications:

DISPLACEMENT—200 tons.

DIMENSIONS—104′ x 18′ x 8′6″.

SPEED—12 knots (des.).

DRIVE—Diesel; 350 b. hp.

COMPLEMENT—12 to 15.

Present armament is unknown, but one unit of the class is believed fitted with two 13-mm. machine guns, mines, and hydrophone.

SCS—SUBMARINE CHASERS (SMALL)

SCS 101 CLASS (SCS 101–117)

Also included in this class are 12 Netherlands Navy patrol vessels which were under construction at Soerabaja when the port fell. Specifications below are for the original design.

DISPLACEMENT—140 tons (standard).

DIMENSIONS—150′ (o. a.) x 18–20′ x 4–5′.

SPEED—18 knots (des.).

DRIVE—Four Kermuth gas engines; 1,800 hp.; twin screws.
These engines may have been replaced by the Japanese.

ARMAMENT (reported)—One automatic weapon of undetermined caliber forward.
Two machine guns.
Type KE hydrophone.

SCS 251 CLASS (SCS 251–253)

These small submarine chasers were formerly designated as the SCS 51 Class.

COMPLETED—1937–44.

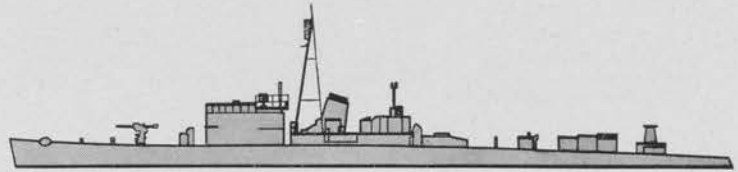
DISPLACEMENT—170 tons (standard).

DIMENSIONS—146′ (o. a.) x 15′3″ x 5′6″ (max.).

SPEED—20 knots (max., est.).

DRIVE—Diesel.

Present armament is undetermined.

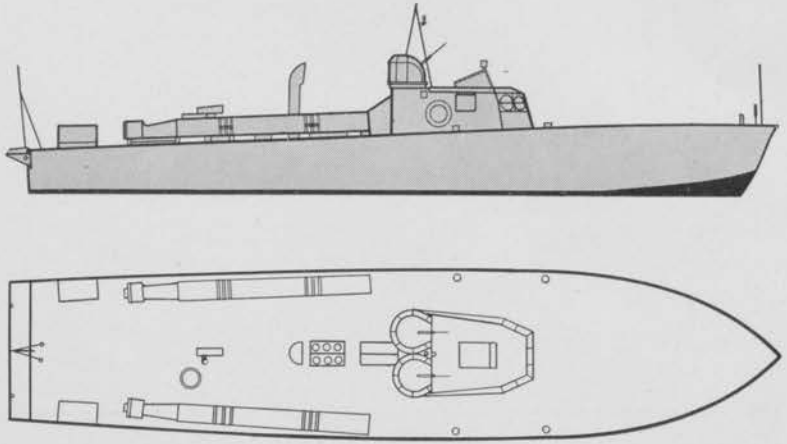


MOTOR TORPEDO AND HAYABUSA BOATS (PT, PGM)

It is estimated that the Japanese have in operation over 300 motor torpedo boats comprising some fifteen classes. Although information is available for only four of these, it is probable that the unidentified classes are very similar to each other and that numbered designations do not actually indicate distinct differences. In general, Japanese PT's are considered inferior to United States motor torpedo boats in speed, firepower, and performance.

Japanese respect for our PT's is revealed in their program for the construction of Hayabusa Boats, high-speed patrol craft whose primary function is reported as "anti-torpedo-boat warfare." Approximately 90 are now believed to be in operation. The Hayabusa is well equipped with heavy automatic machine guns and can carry mines and depth charges, but is not equipped for torpedoes.

PT 1 CLASS (PT 1–9)



All units were adapted from an Italian MAS design.

DISPLACEMENT—20 tons (standard).

DIMENSIONS—61′ (o. a.) x 14′ x 2′2″ (max.).

SPEED—38 knots (max.); 30 knots (cruising).

ENDURANCE—210 miles at 30 knots.

DRIVE—Two HIRO gas engines; 1,800 hp.

ARMAMENT—Two 18″ torpedoes.
Two 7.7-mm. machine guns.
Two to six depth charges carried.
Hydrophone gear carried.

COMPLEMENT—7.

PT 10 CLASS (PT 10–16)

Seven of these steel-hulled units are believed to be operating.

DISPLACEMENT—80 tons (standard).

DIMENSIONS—107′ (o. a.) x 16′6″ x 2′6″ (max.).

SPEED—29 knots (max.); 16 knots (cruising).

ENDURANCE—340 miles at 28 knots; 1,000 miles at 16 knots.

DRIVE—Four gas engines; 3,800 hp.; 4 screws.

ARMAMENT—Four 18″ torpedoes.

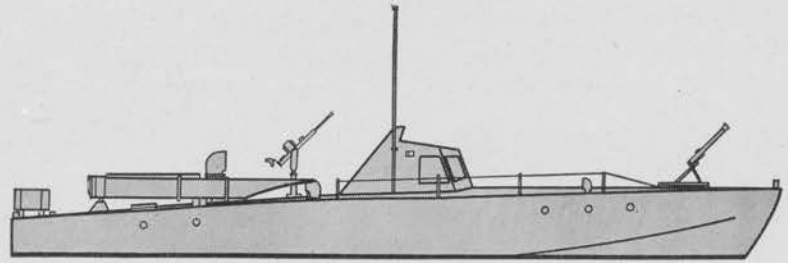
Three 13-mm. single AAMG.

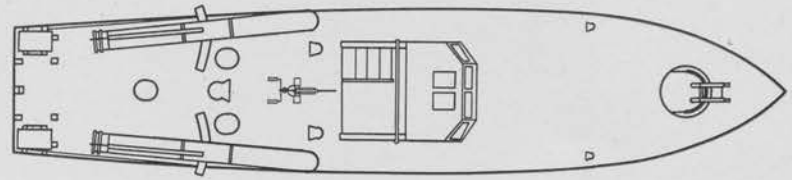
Eight to twelve depth charges.

Smoke apparatus and hydrophone carried.

COMPLEMENT—18.

PT 101 CLASS (PT 101, 109–118)—Captured Units.





This group includes 10 Dutch PT's seized by the Japanese. All are steel-hulled.

DISPLACEMENT—20 tons (standard).

DIMENSIONS—61′ (o. a.) x 12′9″ x 4′.

SPEED—38 knots (max.); 30 knots (cruising).

ENDURANCE—310 miles at 30 knots.

DRIVE—Three gas engines and screws; 1,350 hp. (des.).

ARMAMENT—Two 18″ torpedoes.

Two 13-mm. twins, one 7.7-mm. AAMG.

Two to twelve depth charges.

MOTOR TORPEDO BOATS

PT 114, the ex Philippine Q-III

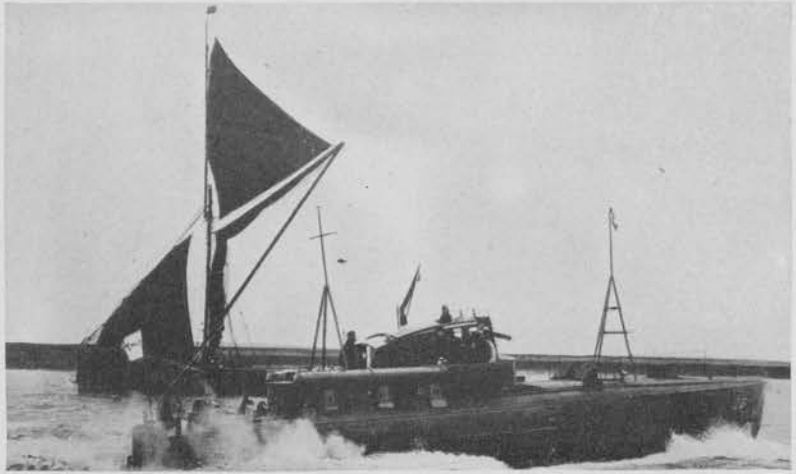
DISPLACEMENT—20 tons (est.).

DIMENSIONS—65′ x 13′ 3″ x ?.

SPEED—39 knots (des.); 41 knots (trial).

DRIVE—Three 12-cylinder Thornycroft engines; 1,800 b. hp.

ARMAMENT (original)—Two 18″ torpedoes.
Two AAMG.
? depth charges.



The other classes, with their operational units, are officially listed as follows:

PT 151 Class—PT 151–156; PT 206 Class—PT 206–212, 219, 230–234; PT 220 Class—PT 220–229, 316–326, 349–354, 421–425, 455, 456, 501–505; PT 235 Class—PT 235–240; PT 241 Class—PT 241–249, 250–286, 457–467, 506–528; PT 301 Class—PT 301–315; PT 327 Class—PT 327–348, 355–357; PT 411 Class—PT 411–420, 426–450, 470–473; PT 468 Class—PT 468, 482–490; PT 469 Class—PT 469; PT 474 Class—PT 474–481.

In addition, there are 38 units unassigned to any of these classes.

PT 201 CLASS (PT 201–205, 213–218, 401–410, 451–454)

Twenty-five units are believed to be in commission. Characteristics indicate a multipurpose design for patrol, liaison, mine laying, and mine sweeping duties as well as defensive torpedoing.

DISPLACEMENT—20 tons (standard).

DIMENSIONS—59′ (o. a.) x 14′ x 2′2″ (max.).

SPEED—14 knots.

ENDURANCE—310 miles at 14 knots.

DRIVE—One type 91 gas engine; 900 hp.

ARMAMENT—Two 18″ torpedo tubes.
One 13-mm. AAMG.
Mines and depth charges can be carried.

HAYABUSA BOATS (PGM)

Eighty-six more units, comprising three classes, are mentioned for this type of anti-submarine, anti-PT "high-speed boat," without any specific breakdown as to characteristics. Classes are:

No. 1 Class—1–9.

No. 10 Class—10–26, 52–73, 204–211 (48 units).

No. 74 Class—74–100, 201–203.

DISPLACEMENT—20 tons.

DIMENSIONS—59′ (o. a.) x 14′ x 7′6″ (max.).

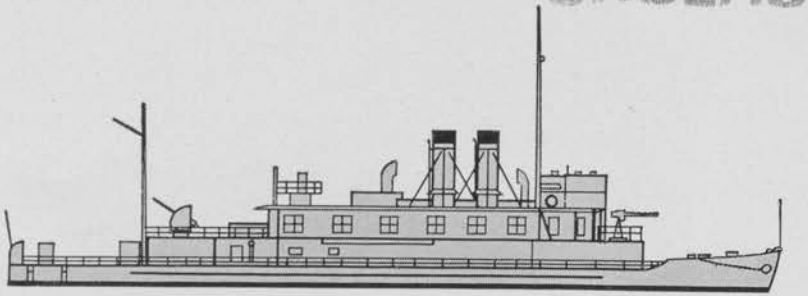
SPEED—37 knots (max.); 30 knots (cruising).

ENDURANCE—180 miles.

DRIVE—Two 800 hp. aircraft engines.

Armament varies considerably in these craft. One 40-mm. and one or two machine guns have been reported in armored turrets. Depth charges may also be carried.

PR 1—TOBA



COMPLETED—1911.

DISPLACEMENT—215 tons (standard)

DIMENSIONS—183′3″ (o. a.) x 27′ x 2′7″ (mean).

SPEED—16.1 knots (max.).

DRIVE—Reciprocating engines; 1,200 designed hp.

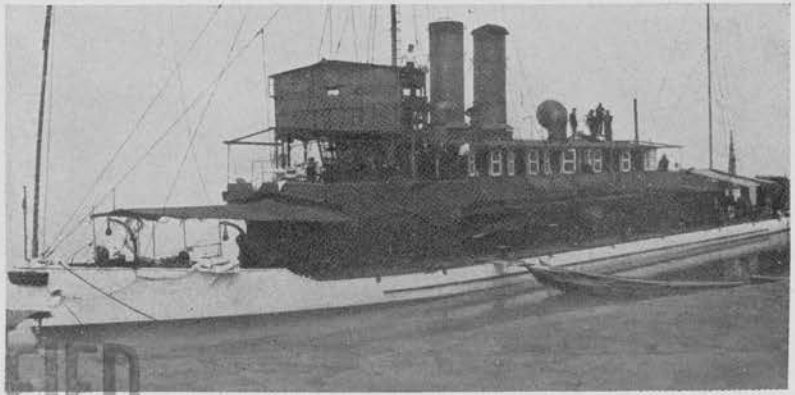
ARMAMENT—Two 3″/40 cal. (shields may have been removed).

COMPLEMENT—52.

Fifteen river gunboats including six seizures are listed by the Japanese. These vessels are primarily designed for river and harbor protection in China, but are also suitable to inland sea and coastal patrol.

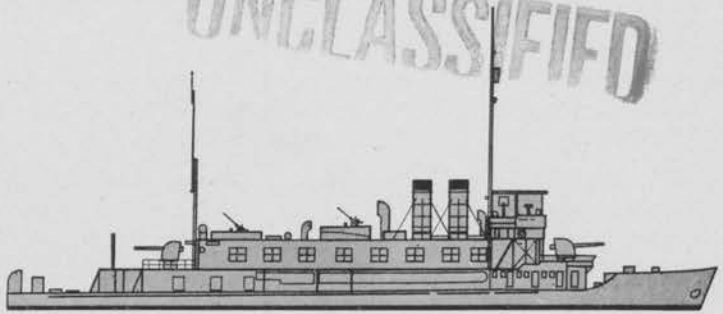
Their appearance is usually marked by two tall stacks stepped on a high, multi-tiered deckhouse, a combination which should make them distinctive from other river passenger types. Most of these vessels are armed with 3″ gun mounts fore and aft, with additional automatic AAMG, although PR 12 (the ex MOTH) mounted two 6″ guns at the time of its capture.

Supplementing the designated river gunboats are approximately 15 Chinese Customs Patrol ships and 13 Manchukuan river gunboats whose general appearance and function warrant their classification in the river gunboat group.



RIVER GUNBOATS (PR)

PR 2–5 HIRA CLASS—HIRA, HOJU, KATADA, SETA



COMPLETED—1922–23; modernized 1937.

DISPLACEMENT—305 tons (standard).

DIMENSIONS—184′ (o. a.) x 27′ x 3′4″ (mean).

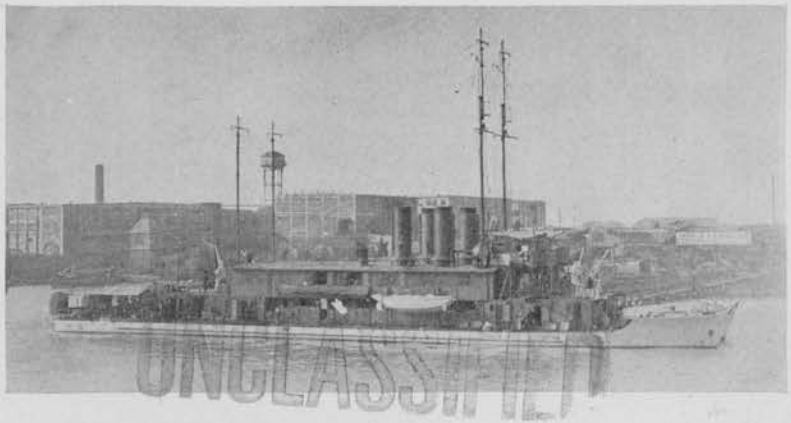
SPEED—16 knots (des.).

DRIVE—Reciprocating; 2,100 hp. (des.).

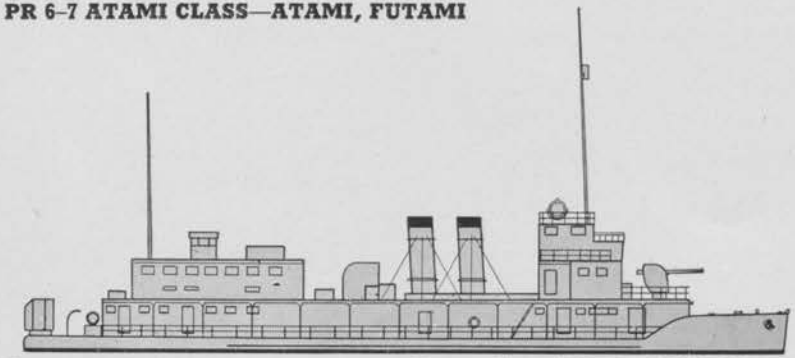
FUEL—Oil or coal (PR 4—KATADA converted to all-oil fuel).

ARMAMENT—Two 3″/40 cal.
Two 13 - mm. MG (twins).

COMPLEMENT—62.



PR 6–7 ATAMI CLASS—ATAMI, FUTAMI



COMPLETED—1928–30.

DISPLACEMENT—170 tons (standard).

DIMENSIONS—148′8″ (pp) x 20′8″ x 3′ (mean).

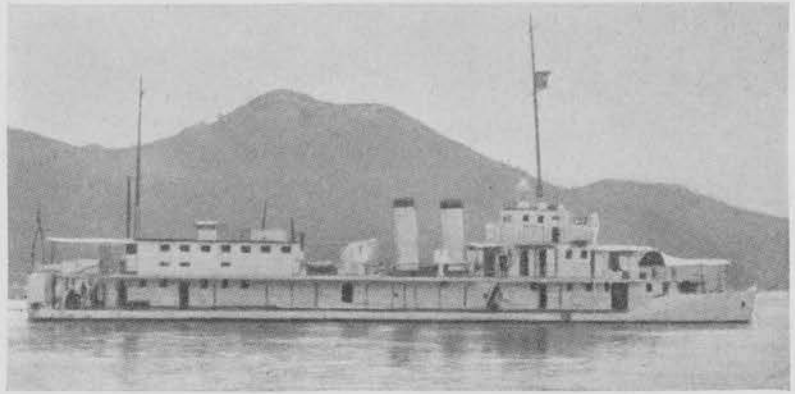
SPEED—16 knots (des.).

DRIVE—Reciprocating; 1,200 hp. (des.).

FUEL—Coal (PR 7—FUTAMI reported due for refit to oil fuel).

ARMAMENT—One 3″/40 cal.
Two 13 - mm. MG (twins).

COMPLEMENT—56.



PR 8-9 SUMIDA CLASS—SUMIDA, FUSHIMA

COMPLETED—1937–43.

DISPLACEMENT—320 tons (standard).

DIMENSIONS—164′ (o. a.) x 32′ x 3′6″ (mean).

SPEED—16 knots (des.).

DRIVE—Reciprocating; 2,200 hp. (des.).

ARMAMENT—One 3″/40 cal.
? automatic AAMG.

PR 10 MAIKO

Built in England in 1909. Formerly ex Portuguese MACAU; may have been rearmed with Japanese weapons.

DISPLACEMENT—95 tons (standard).

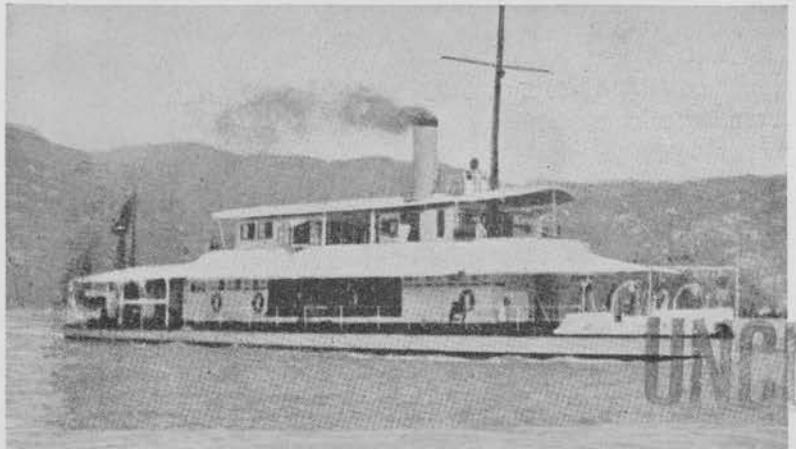
DIMENSIONS—119′8″ (pp) x 19′9″ x 2′.

SPEED—12 knots (des.).

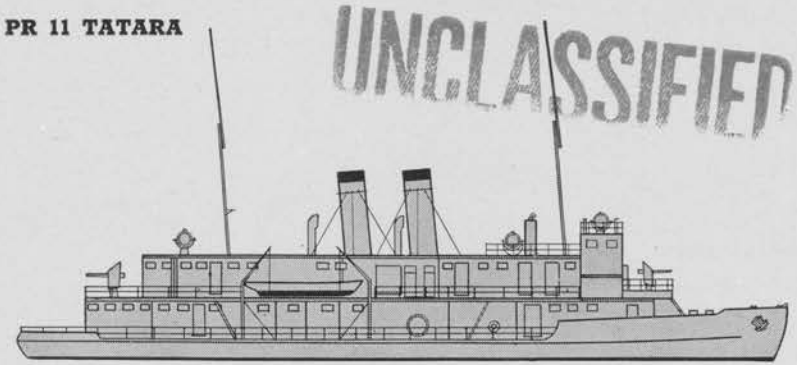
ENDURANCE—300 miles at econ. speed.

DRIVE—Reciprocating; 250 hp. (des.).

ARMAMENT (original)—Two British 6 pounders.
Three machine guns.



PR 11 TATARA



Formerly the U. S. S. WAKE (ex GUAM) captured by the Japanese at Shanghai, December 1941.

COMPLETED—1926–27.

DISPLACEMENT—370 tons (standard).

DIMENSIONS—159′5″ (o. a.) x 27′1″ x 5′1″ (mean).

SPEED—14.5 knots (des.).

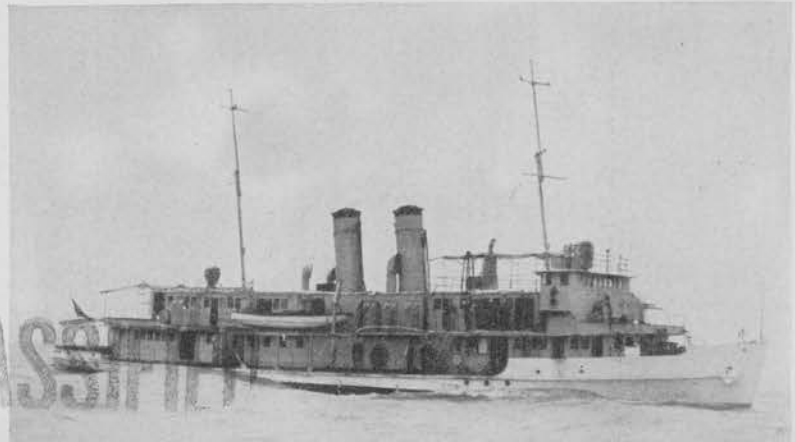
DRIVE—Reciprocating; 1,950 hp. (des.).

FUEL—Oil.

ARMAMENT—Two 3″/23 cal.

(at time of capture) Ship may have been refitted with Japanese weapons.

COMPLEMENT—58.



RIVER GUNBOATS (PR)

All specifications are pre-war and these vessels may have been refitted or altered since seizure.

PR 12 KARATSU

Formerly the U. S. S. LUZON captured by the Japanese.

COMPLETED—1926–28.

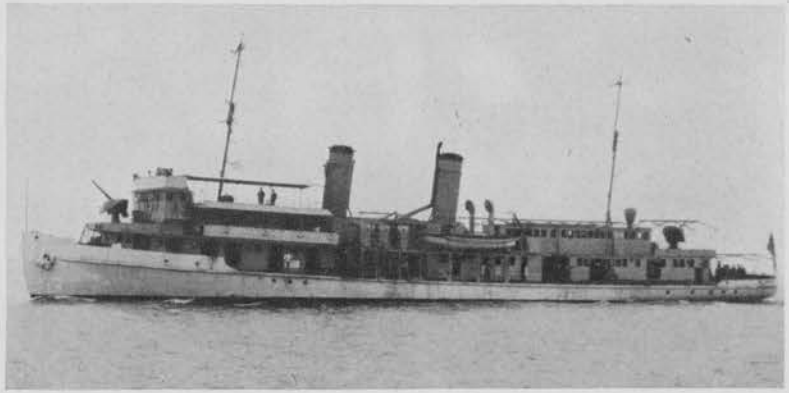
DISPLACEMENT—560 tons (standard)

DIMENSIONS—210′9″ (o. a.) x 31′1″ x 5′7″ (mean).

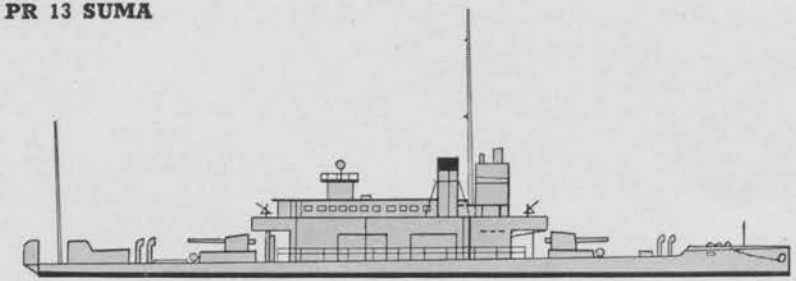
SPEED—16 knots (des.).

DRIVE—Reciprocating; 3,150 hp. (des.).

ARMAMENT
(at time of capture)—Two 3″/50 cal.
Ten .30 cal. AAMG.



PR 13 SUMA



Formerly H. M. S. MOTH captured by the Japanese in December 1941.

COMPLETED—1915–16.

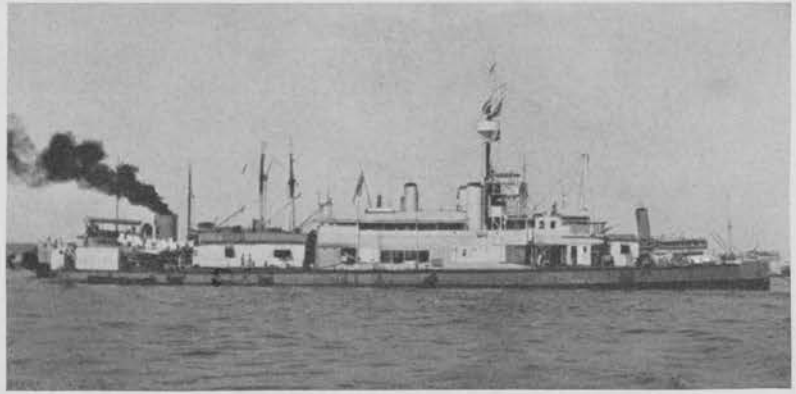
DISPLACEMENT—625 tons (standard)

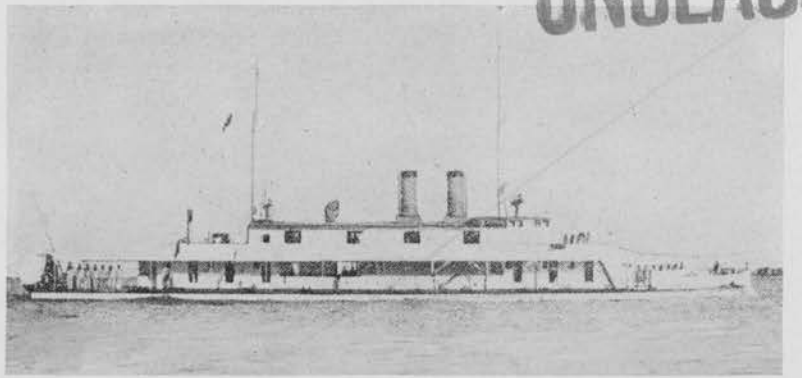
DIMENSIONS—237′6″ (o. a.) x 36′ x 4′6″ (mean).

SPEED—15 knots (max.).

DRIVE—Reciprocating; 2,000 hp. (des.).

ARMAMENT
(at time of capture)—Two 6″/50 cal.
One 2-pounder pompom.





PR 14 NARUMI—Ex Italian Gunboat, ERMANNO CARLOTTO

COMPLETED—1918.

DISPLACEMENT—180 tons.

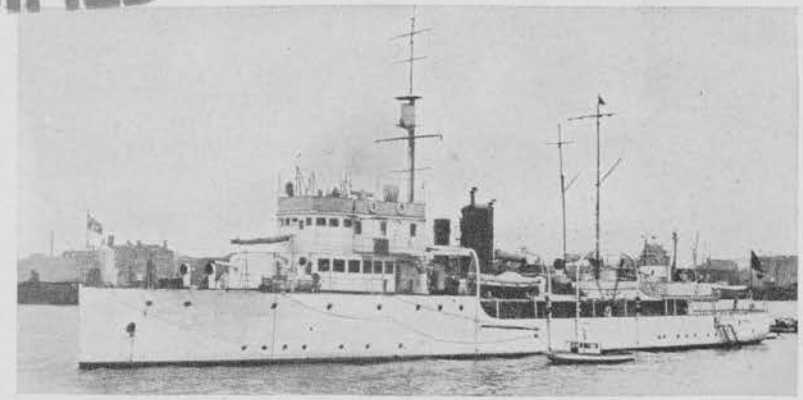
DIMENSIONS—160′ x 24′6″ x 2′7″.

SPEED—14 knots (des.).

DRIVE—Reciprocating; 1,100 hp. (des.).

ARMAMENT (original)—Two 3″ AA.
Six machine guns.

COMPLEMENT—156.



PR 15 OKITSU—Ex Italian Minelayer, LEPANTO

COMPLETED—1927.

DISPLACEMENT—615 tons (standard)

DIMENSIONS—205′3″ x 28′6″ x 8′6″ (mean).

SPEED—15 knots (des.).

DRIVE—Reciprocating; 1,500 hp. (des.)

ENDURANCE—3,500 miles.

ARMAMENT (original)—Two 4″/35 cal.
One 3″ AA.
Two machine guns.
Eighty mines.

COMPLEMENT—100.

MANCHUKUAN RIVER GUNBOATS (PR)

KOSEI, KOHEI

PR—KOSEI is ex CHIANG CHING, KOHEI is ex CHIANG PIEN.

COMPLETED—1897–1900 for Russia.

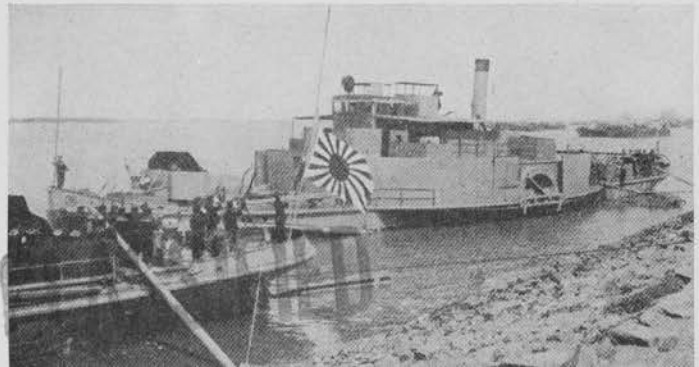
DISPLACEMENT—360 tons.

DIMENSIONS—164′ x 31′6″ x 3′3″.

SPEED—7–7.5 knots.

DRIVE—Reciprocating.

ARMAMENT—One 3″.
Four machine guns.



RISEI

PR—RISEI is ex LICHI. Built in 1895 for Russia.

DISPLACEMENT—362 tons.

DIMENSIONS—158′ x 42′9″ x 3′6″.

SPEED—7.5 knots.

ARMAMENT—One 3″.
Four machine guns.

MANCHUKUAN RIVER GUNBOATS (PR)

RISUI

COMPLETED—1903 as the German gunboat, VATERLAND.
DISPLACEMENT—350 tons (max.).
DIMENSIONS—164′ x 26′3″ x 2′7″.
SPEED—7 knots or less.
DRIVE—Triple expansion; 1,380 i.h.p.
ARMAMENT—Two 57 mm.
Two machine guns.
COMPLEMENT—100.

TEIKEN, SHINJIN

PR—TEIKEN is ex TING PIEN; SHINJIN the ex CHIN JEN.
COMPLETED—1935.
DISPLACEMENT—290 tons (standard)
DIMENSIONS—195′ x 29′ x 3′.
SPEED—13 knots.
DRIVE—Diesel; 680 b.h.p.
ARMAMENT—Two 4.7″.
Three machine guns.
COMPLEMENT—70.

JUNTEN, YOMIN

PR—JUNTEN is ex SHUN TIEN; YOMIN the ex YANG MIN.
COMPLETED—1934.
DISPLACEMENT—270 tons (standard)
DIMENSIONS—183′ x 29′ x 3′.
SPEED—12.5 knots.
DRIVE—Diesel; 680 b. hp.
ARMAMENT—Two 4.7″.
Three machine guns.
COMPLEMENT—70.

KOTSU

PR—KOTSU is ex CHIANG TUNG; also may be ex MONGOL. Built in 1903 for Russia.

DISPLACEMENT—250 tons (standard)
DIMENSIONS—150′ x 18′3″ x 3′.
SPEED—4.5 knots.
DRIVE—Steam.
ARMAMENT—One 3″.
Four machine guns.

Police Patrol Vessels—KAIHO, KOIRYIN

KAIHO is ex HAIFENG; KOIRYIN the ex HAILUNG.

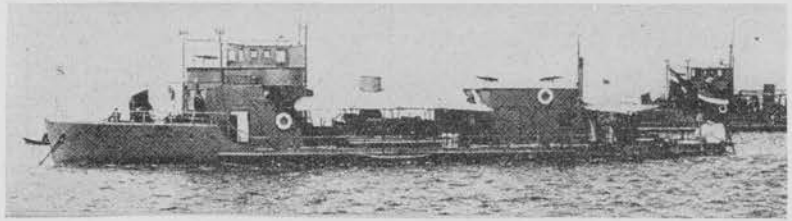
COMPLETED—1933.
DISPLACEMENT—184 tons.
DIMENSIONS—143′ x 20′ x 5′.
SPEED—14 knots.
DRIVE—Diesel (2 sets).
ARMAMENT—Two 3″.
Two machine guns.

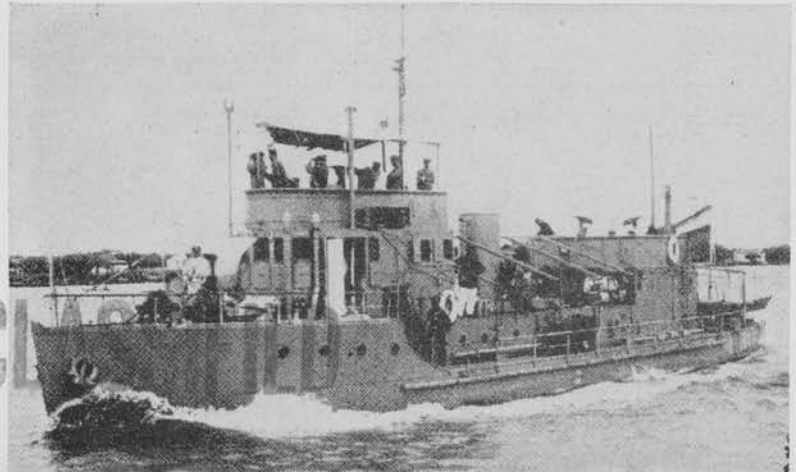
Both vessels reported strengthened for ice navigation.

DAIDO, RIMIN

PR—DAIDO is ex TATUNG; RIMIN the ex LIMIN.

COMPLETED—1933.
DISPLACEMENT—65 tons (standard).
DIMENSIONS—100′ x 16′ x 2.5′.
SPEED—10.5 knots.
DRIVE—Diesel; 240 b.h.p.
ARMAMENT—One 57-mm. howitzer.
Three machine guns.
COMPLEMENT—20.





EX CHINESE CUSTOMS PATROL CRUISERS

"HO" CLASS

Three ships, the HOHSING, TEH HSING, and LIENHSING, are known to have been captured in good condition.

COMPLETED—1934.

DISPLACEMENT—900 tons (standard)

DIMENSIONS—170′ (o. a.) x 12′ (draft).

SPEED—13 knots (des.).

DRIVE—Triple expansion; 2,000 hp.

ARMAMENT—Two British 3 pounders
Six .30 cal., two .50 cal. MG.

"HUA" CLASS

Two units, the HUAHSING and FEIHSING, were built to this design in 1932.

DISPLACEMENT—800 tons.

LENGTH—147′ (o. a.) x 10′ (draft).

SPEED—13 knots (cruising).

DRIVE—Triple expansion.

ARMAMENT—Two British 3 pounders
Two .50 cal., four .30 cal. MG.

"HAI" CLASS

Four units of class believed to be under Japanese control are HAITSING, HAIAN, HAIYEN, HAICHENG.

COMPLETED—1934.

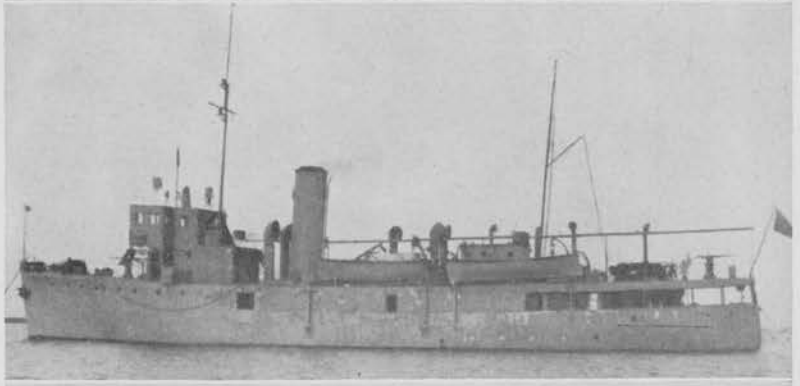
DISPLACEMENT—600 tons.

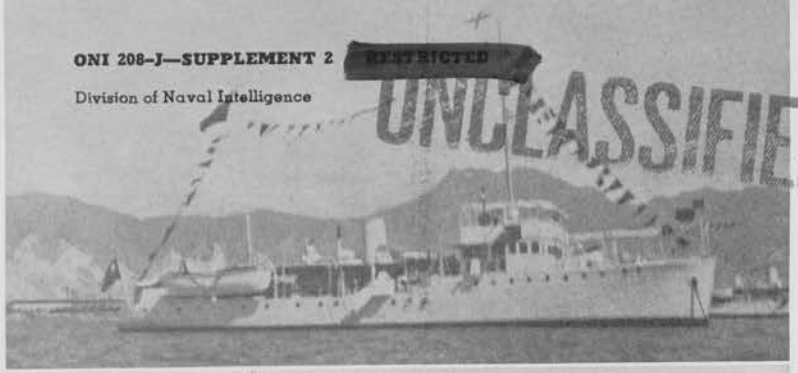
DIMENSIONS—140′ (o. a.) x 9′ draft.

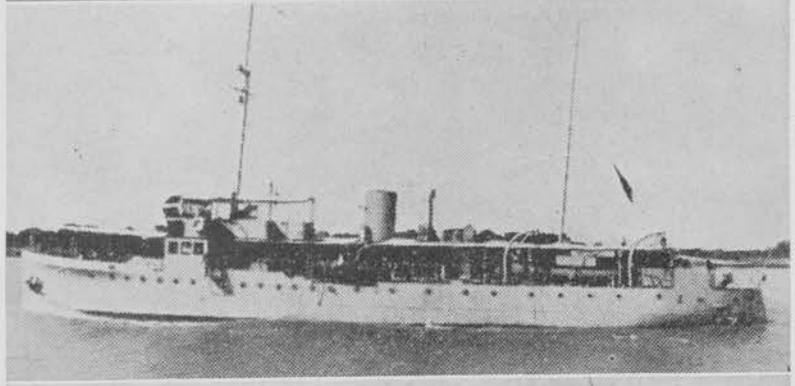
SPEED—13 knots (des.).

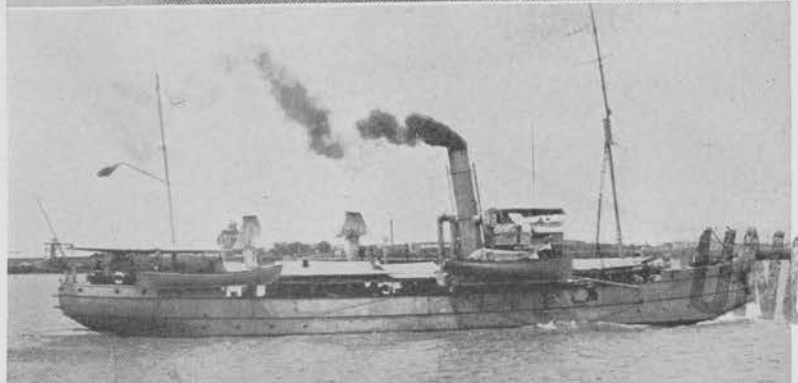
DRIVE—Triple expansion.

ARMAMENT—One British 3 pounder.
Four .30 cal. MG.









EX CHINESE CUSTOMS PATROL CRUISERS

HAIHUI CLASS

Class consists of HAIHUI and HAIPING; both built in 1934 at Shanghai.

DISPLACEMENT—600 tons (standard)
DIMENSIONS—140′ (o. a.) x 8′ draft.
SPEED—12 knots.
DRIVE—Twin Diesel.
ARMAMENT—One British 3 pounder. Four .30 cal. MG.

"SOO" CLASS

The SOOHSING, WEN HSING, and YUN HSING were built in 1934 at Shanghai.

DISPLACEMENT—400 tons (standard)
DIMENSIONS—140′ (o. a.) x 6′ draft.
SPEED—15 knots.
DRIVE—Twin Diesel.
ARMAMENT—One British 3 pounder, several MG's.

CHUENTIAO CLASS

CHUENTIAO and LIKIN were operating as "Revenue Cruisers" before capture in 1941; LIKIN may have been refitted since.

COMPLETED—1888.
DISPLACEMENT—600 tons (approx., standard).
DIMENSIONS—160′ (o. a.) (CHUENTIAO) 150′ (o. a.) (LIKIN) x 10′ draft.
SPEED—12 knots.
DRIVE—Triple expansion.
ARMAMENT—One British 3 pounder. Four .30 cal. MG.

LANDING SHIPS, MILITARY LANDING CRAFT, AND BARGES

The current Philippine campaign again emphasizes the importance of military landing craft in the Japanese Navy, and as future Allied operations shorten Japanese lines of communications, landing craft will assume an even more significant role. The enemy will probably rely on amphibious tactics similar to those observed in New Guinea during the past several months—making short inter-island and coastal runs, hiding by day, landing at night, and using land-based air cover whenever possible.

Any type of surface ship is capable of carrying MLC, proportionate in number to the sizes of both the ship and the MLC carried. Specially designated tenders carry large numbers of barges below decks, launching them through stern and side ports constructed for the purpose. Barges are also transported as deck cargo aboard warships or merchant vessels, and are hoisted overside by means of derricks, sometimes with the aid of rollers. Reconnaissance submarines may also carry one or two MLC's bolted to the after deck.

LANDING SHIPS (LST)

Reconnaissance photographs in the past several months have revealed the existence of a smaller and newer type of amphibious ship which seems a hybrid of the United States LST and LSM. Because of a closer similarity to the LST, it was presented first by that designation; also called "Japanese Auxiliary Transport." There are now believed to be three classes of this type, identified by the Japanese as "HA," "NI," and "I" Classes. These ships, capable of carrying tanks, ammunition, and personnel, are being built in large numbers.

MILITARY LANDING CRAFT AND SUPPLY BARGES (MLC)

Previous ONI studies classified Japanese landing craft according to alphabetical designations, basing these on early reconnaissance photographs and intelligence data from the field. This system is followed in the manual, although it does not present a functional breakdown of landing craft.

Generally, Japanese barges can be divided into these three categories:

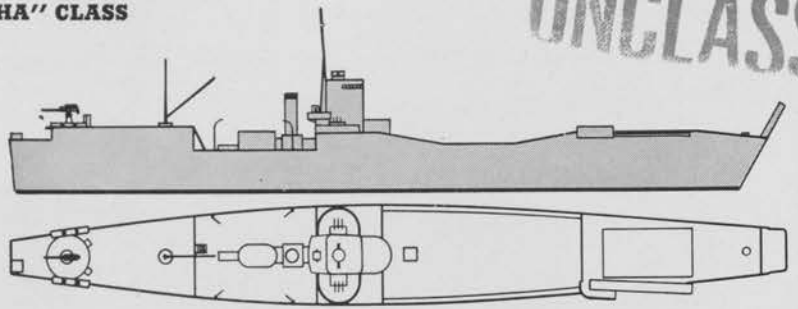
1. *Landing craft*—Used primarily for quick debarkation of personnel and supplies; includes Types "Super-A," "A," "B," "E," "F," "G," and "H." "Super-A" or Toku Daihatsu is an overgrown version of Type "A" (Army), the standard barge used by the Japanese in every theater. There are other large barges in use, but the Toku Daihatsu is the only standard model so named by the Japanese. It is reported that 50% of all military landing craft in use are the Daihatsu or Type "A," but recent reconnaissance photographs indicate an increase in the number of Type "H," a 52-foot plywood barge evolved from the "A," but which is easier to build than its predecessor.

2. *Armored boats and high-speed boats*—Used for barge escort, liaison, reconnaissance, smoke-screening, and patrol; this includes Types "C" and "K." The Type "C" or its variation is likely to be encountered in increasing numbers, since it can be used for barge escort and as a substitute for the more expensive PT boats. Specifications are also listed for a new Type "K" which the Japanese identify as KOSO-KOKO or "high-speed boat." This craft is said to resemble a launch and has been used throughout the war for liaison and reconnaissance. As yet there are no clearly identified photographs of this type. New information on their "Suicide craft" is also included.

3. *Cargo barges, flats, and wooden lighters* (dumb or self-propelled) include Types "D," "I," and "J," presented even though odd native lighters perform similar functions. These lighters would be more aptly placed in the "Cargo Barge-Lighter Section" but are included here because of the previous classification adopted

Recent photos of Japan proper reveal the presence of the double-ender "I" used extensively in home harbors, and this type is likely to be observed more frequently. Variations of Type "D" are also presented but should not be taken as standard. The ease of building this type and similar lighters is borne out by the preponderance of these craft seen in reconnaissance photographs of Japanese harbors.

"HA" CLASS



This class is referred to by the Japanese as Auxiliary Transport or SS Boat. It is designed for beach landings.

DISPLACEMENT—1,000 tons.

DIMENSIONS—264′ (o. a.) x 31′.

DRAFT—10′2″ (max.).

SPEED—20 knots (max.); 18 knots (cruising).

ENDURANCE—1,000 miles at 18 knots.

DRIVE—2 Diesels; 5,000 hp.

ARMAMENT—One or two 3″/40. Four heavy AAMG, several light.

CAPACITY—150 men, 4 tanks, and munitions, or 3,000 cubic meters of munitions.

"I" CLASS

DISPLACEMENT—800 tons.

DIMENSIONS—193′6″ x 31′5″ x 15′ (depth).

DRAFT—13′2″ (max.).

SPEED—14 knots (max.); 13 knots (cruising).

ENDURANCE—1,000 miles.

DRIVE—2 Diesels; 1,110 hp.

CAPACITY AND ARMAMENT—Same as for "HA" Class.

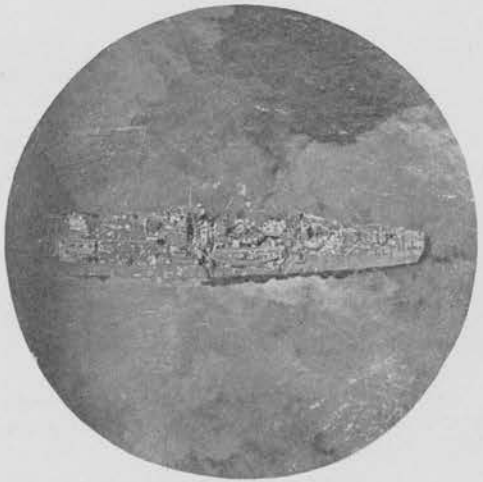
"NI" CLASS

DISPLACEMENT—1,100 tons (reported).

SPEED—25 knots (approx.).

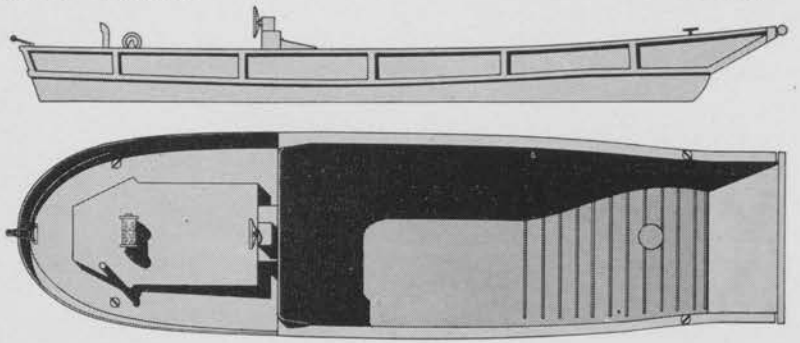
RANGE—1,000 miles.

DRIVE—Steam turbine; 10,000 (?) hp.



MILITARY LANDING CRAFT

TYPE "SUPER A"



This enlarged Type "A" has been used for debarkation of tanks, heavy matériel, or personnel throughout the Pacific area. Japanese designation is TOKU DAIHATSU.

DISPLACEMENT—15 tons.

DIMENSIONS—65′ (may vary) x 14′8″ x 4′ (max.).

SPEED—9 knots (loaded); 10.5 knots (light).

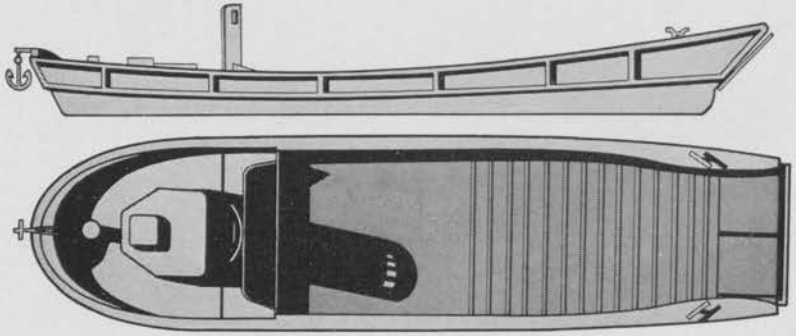
ENDURANCE—13 hours.

DRIVE—Two 6-cylinder Diesels; 120 hp.

CAPACITY—170 to 190 fully equipped troops, or 20 horses, or 25 tons supply, or 2 trucks, or 2 Type 89 or 1 Type 97 tanks.

CREW—8 to 10.

TYPE "A" ARMY



This is the most common type observed for the debarkation of personnel, horses, or medium tanks. Japanese designation is DAIHATSU.

DISPLACEMENT—8 tons.

DIMENSIONS—49′4″ (o. a.) x 11′5″ x 3′–4′ (loaded).

SPEED—7.5 knots (loaded); 8.7 knots (light).

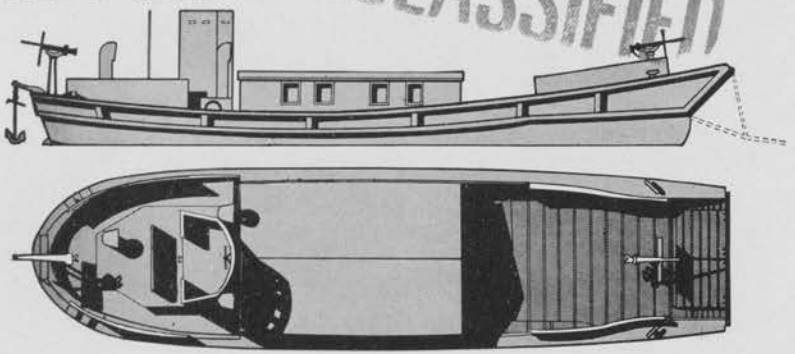
ENDURANCE—9.5 hours.

DRIVE—One 6-cylinder Diesel; 60–80 hp.

CAPACITY—70 to 90 fully equipped troops, or 10 horses, or 11 tons supply, or 1 truck, or 1 Type 89 tank, or 3 tons munitions.

CREW—4 to 6.

TYPE "A" NAVY



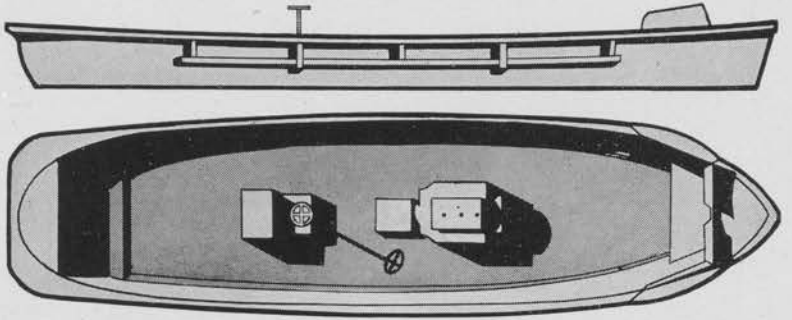
The same design as Type "A" Army, with a cabin amidships.

DISPLACEMENT—8 to 10 tons.

DIMENSIONS—49′4″ (o. a.), 41′ (water line) x 11′5″ x 3′–4′ (loaded).

Other specifications as in Type "A" Army.

TYPE "B"



A pre-war design used to land personnel, which has been observed in all theaters. Japanese designation is SHOHATSU.

DISPLACEMENT—3.3 tons.

DIMENSIONS—33′ (o. a.) x 8′2″ x 2′4″–2′8″ (loaded), 1′4″ (light).

SPEED—8.2 knots (loaded); 9.8 knots (light).

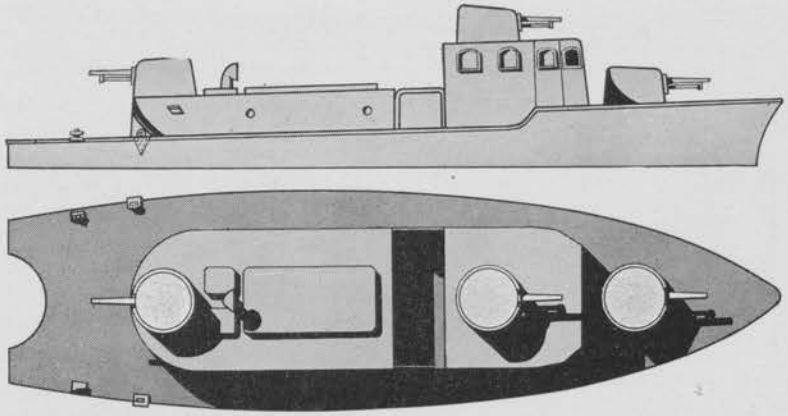
ENDURANCE—4.5 hours.

DRIVE—One 60-hp. Diesel.

CAPACITY—30 fully equipped troops or 3 tons supply.

CREW—4 to 6.

TYPE "C" LANDING CRAFT



STANDARD TYPE

DISPLACEMENT—18 tons.

DIMENSIONS—49′ (o. a.) x 11′6″ x 4′ (max.).

SPEED—12 to 14 knots.

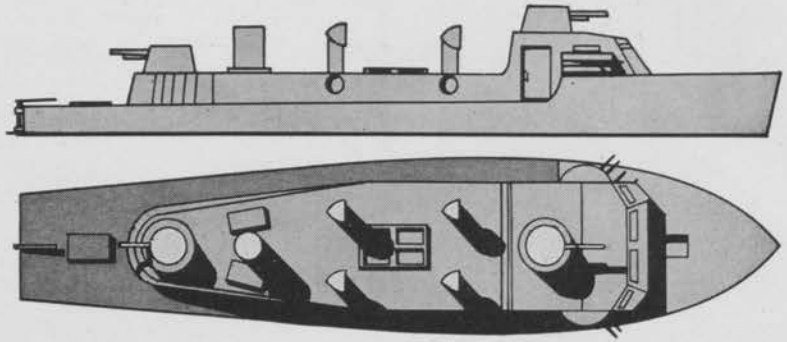
ENDURANCE—10 hours.

ARMAMENT—3 automatic weapons in enclosed gun houses, reported up to 57 mm.

DRIVE—One 350 hp. Diesel.

CREW—13 to 15 troops.

TYPE "C" VARIATION

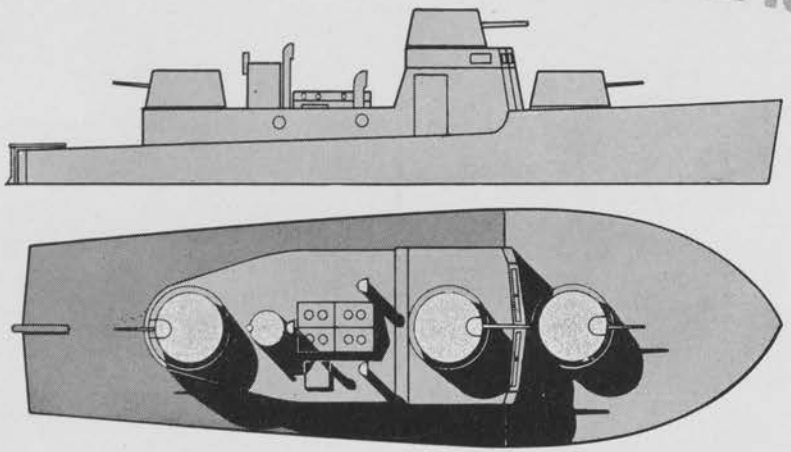


All specifications are as in Type "C" except armament, reported as follows:

Two 57-mm. tank guns in armored shields.

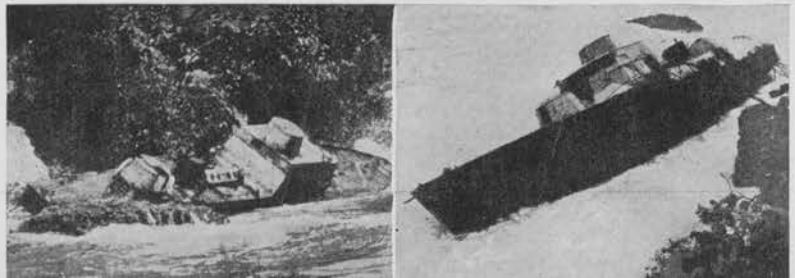
Two 13-mm. twins in armored bridge positions.

This steel motorboat was designed for coastal anti-PT patrol, to neutralize shore-based gun and observation posts, and to serve as barge escorts and general liaison vessels.

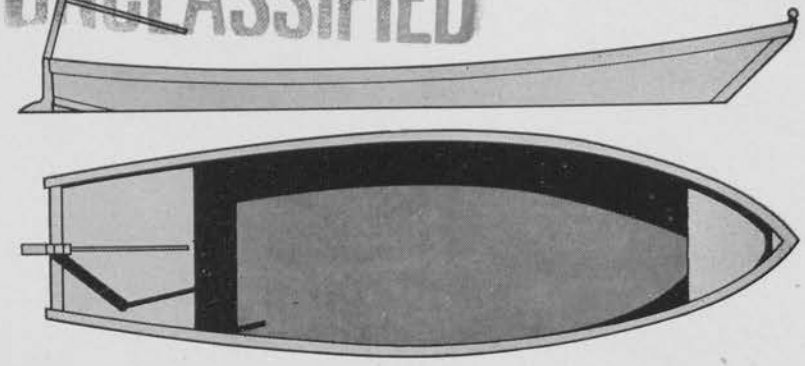


Type "C" variation photographed off Cape Gloucester with three 13-mm. shielded machine guns as total armament. Other specifications as in standard model "C".

Photo above shows another "C" type variation used in the China campaign. Although the "C" has been officially designated as SOKOTEI, there is a possibility that this type, or a variation of it, is also the "Hayabusa Boat" mentioned on preceding pages.

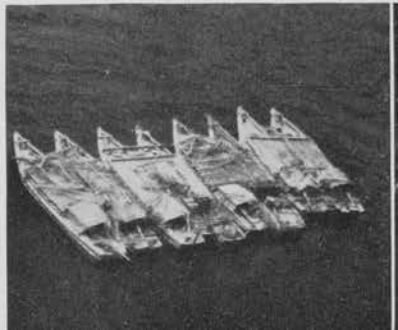


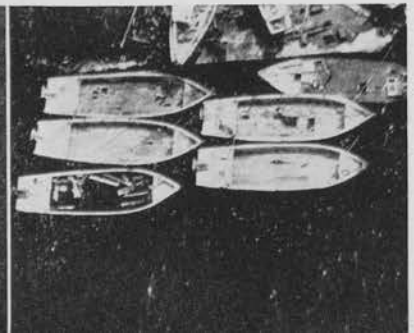
TYPE "D"



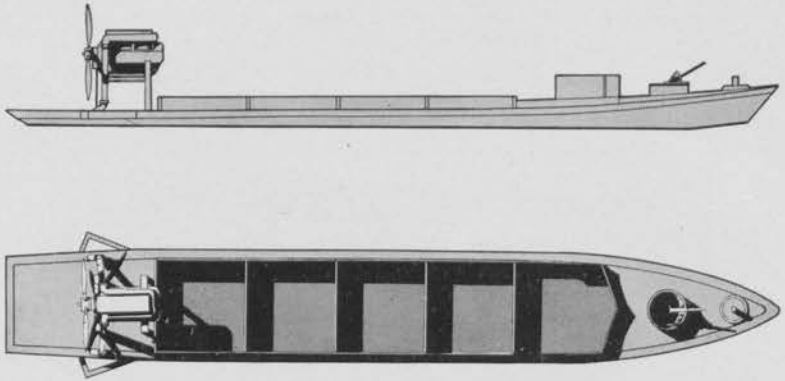
This craft, designated as a "float" or "tiller-type barge," is primarily used as a harbor lighter. Numerous variations of this type have been observed, including some up to 70′ long and powered; others lashed together as a double or pontoon barge. Lack of armament and armor make this type extremely vulnerable.

DISPLACEMENT—4 tons (approx.)
DIMENSIONS—38′5″ x 11′.
SPEED—9 knots (max.) for powered types.
DRIVE—Gas motor for powered types.
CAPACITY—50 fully equipped troops or 8 to 10 tons cargo.





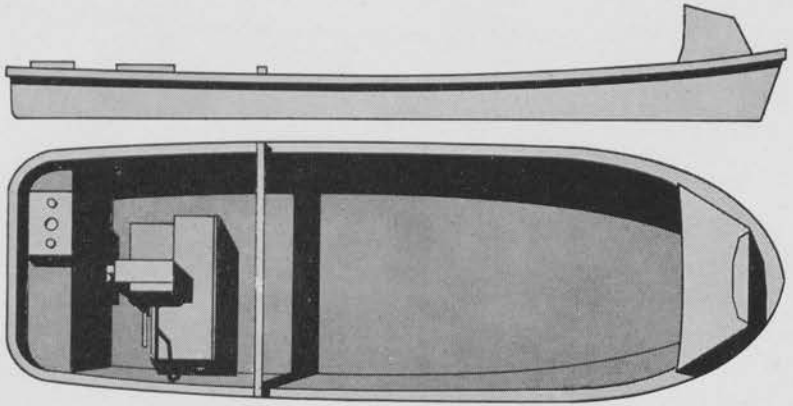
TYPE "E"



Used exclusively as a troop transport for operations in river, estuary, or swampy areas where light draft is necessary.

DISPLACEMENT—
DIMENSIONS—63′2″ (o. a.) x 8′9″ x 1′6″ (max.).
SPEED—10 knots (light).
DRIVE—Airscrew propeller; gas engine.
CAPACITY—60 fully equipped troops or 40 troops and 6 horses.

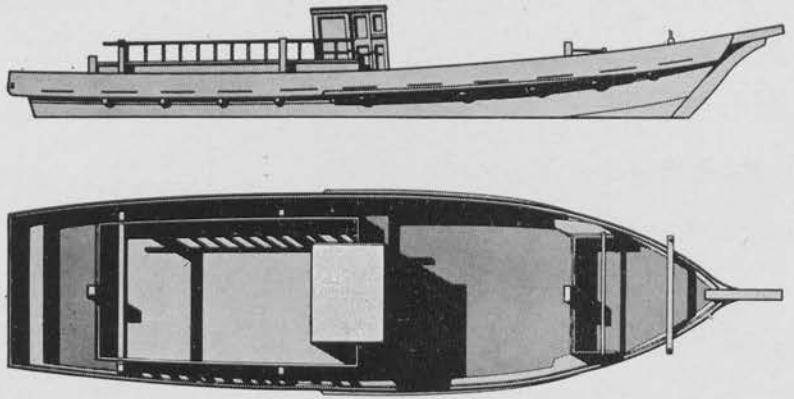
TYPE "F"



A steel-hulled type used for landing small units of personnel. These have also been called "Special Small Barges."

DIMENSIONS—21′ (o. a.) x 7′ beam.
SPEED—8 to 10 knots (loaded).
ENDURANCE—7 to 8 hours.
DRIVE—Gas engine.
CAPACITY—20 fully equipped troops.

TYPE "G"



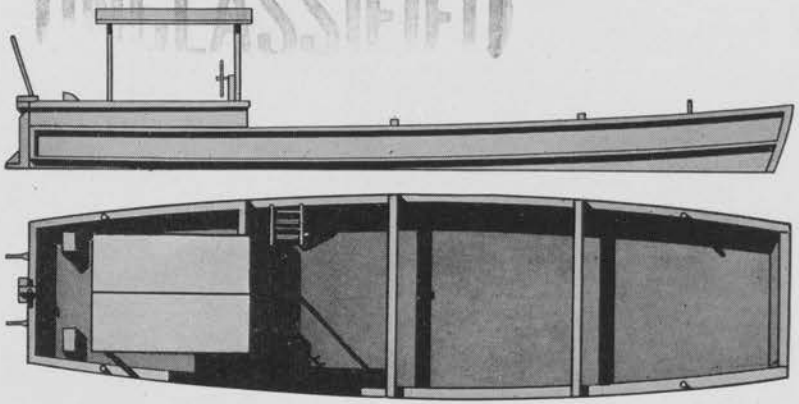
A standard "Sampan Type Barge," derived from the native fishing type.

DIMENSIONS—52′1″ (o. a.) x 13′ beam.
SPEED—7 to 8 knots (light).
DRIVE—Gas engine.
CAPACITY—50 fully equipped troops.

MILITARY LANDING CRAFT AND BARGES

TYPE "H"

A large plywood barge evolved from Type "A;" used for debarkation of troops and equipment.



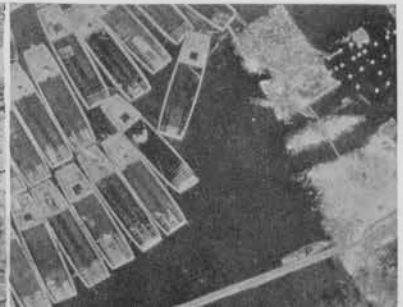
DISPLACEMENT—5 tons.

DIMENSIONS—51′ (o. a.) x 13′ x 3′ (loaded).

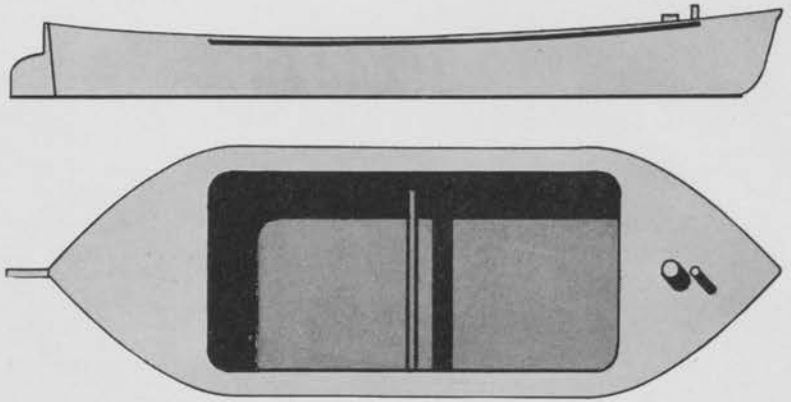
SPEED—6 to 8 knots (light).

DRIVE—Two 40-hp. auto engines.

CAPACITY—90 fully equipped troops or 1 Type 89 tank.



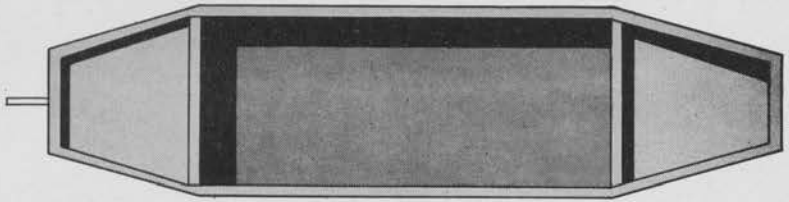
TYPE "I"



A "dumb," double-ended barge often seen towed in column by powered landing craft. None of these has been armed.

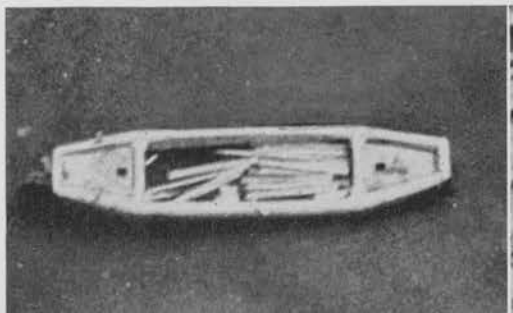
DIMENSIONS—47′ (o. a.) x 16′6″.

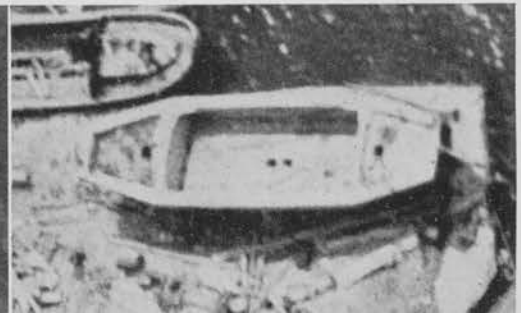
TYPE "J"



A nonpowered wooden type. No armament has been reported carried.

DIMENSIONS—54′ (o. a.) x 15′.





TYPE "K"

A wooden "high-speed boat" used for liaison and patrol. Japanese designation is KOSOKOKO.

DISPLACEMENT—5 to 7 tons.

DIMENSIONS—47′ (o. a.) x 9′6″ x 3′3″ (draft).

SPEED—38 knots (max.).

ENDURANCE—6 hours.

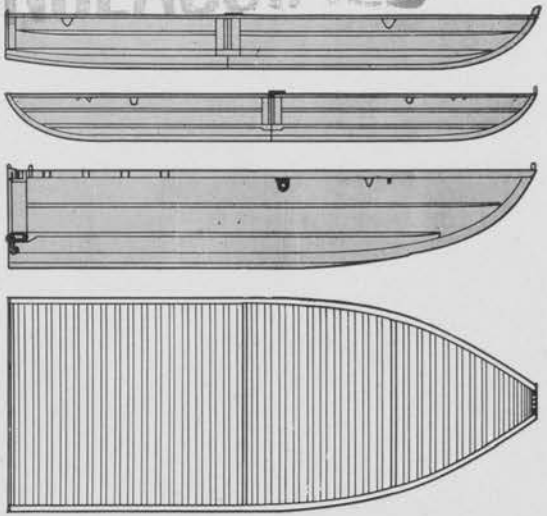
DRIVE—One 400-hp. gas engine.

EQUIPMENT—Radio and smoke equipment.

CREW—4 to 5.

ASSAULT PONTOONS

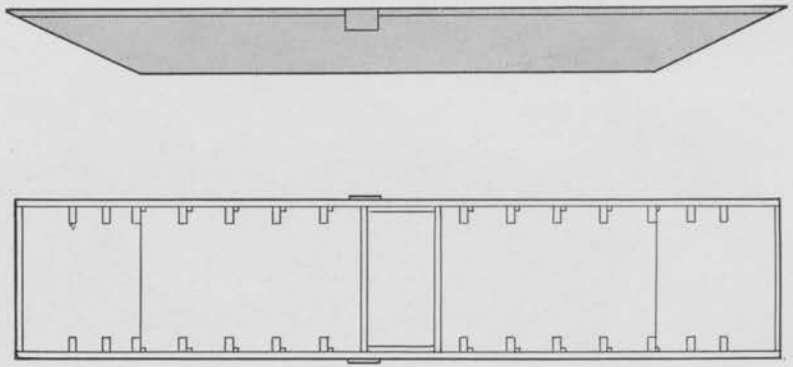
COLLAPSIBLE BOAT



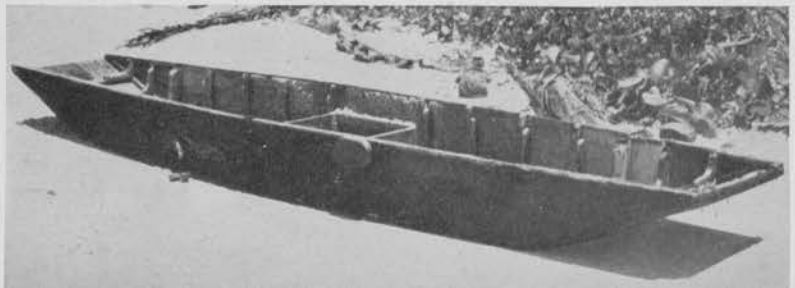
A standard square-stern pontoon built of wood ribbing with canvas covering. Joints are bolted to allow sides to fold inwards. Two of these units can be joined end to end, or fitted with a double-ended "spacer" unit, as shown in the drawings.

Single Unit—
DIMENSIONS—13′7″ (o. a.) x 5′0″.
CAPACITY—20 men.
WEIGHT—400 pounds.

RIGID PONTOON BOAT



Standard Japanese Army Engineers type used as pontoon.
DIMENSIONS—24′6″ (o. a.) x 5′0″.

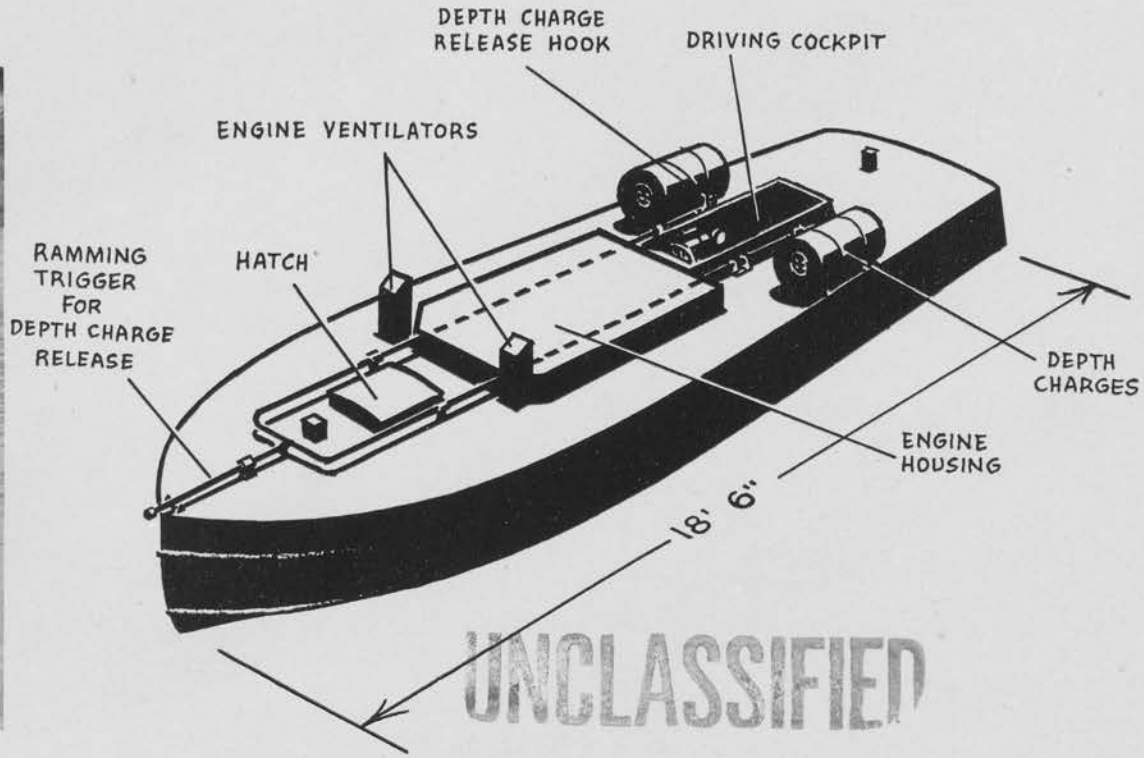


JAPANESE SUICIDE BOATS

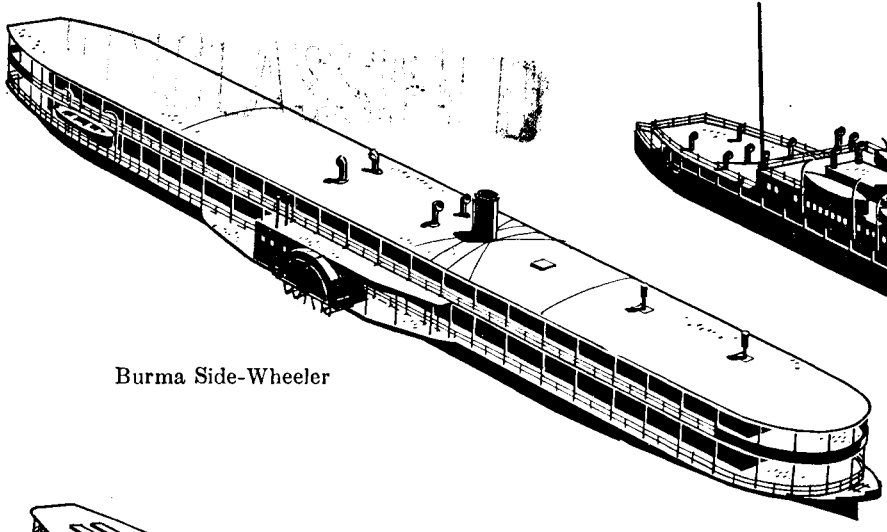
A new type of suicide "depth-charge motorboat" has been recovered and examined with the following characteristics: The craft is a standard, mass-produced design built out of plywood and powered by a single 85-hp. automobile engine. A single screw is connected by direct driving gear, but no provision is made for reverse speeds. The maximum forward speed is estimated at 35 knots, and is used for full-power approaches and get-aways. Most of these craft have been seen to slow down considerably to lay their charges.

Each craft carries two 120-kg. depth charges on their gunwales or stern, both of which can be dropped close aboard their targets or released automatically if the attacking boats choose to ram. This releasing device is shown in the sketch.

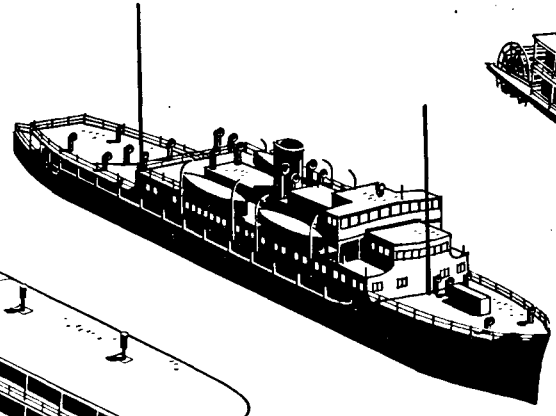
A number of other suicide craft have also been reported, ranging from a three-man midget PT and an "Italian type" explosive motorboat down to local native boats fitted with outboard motors and demolition charges.



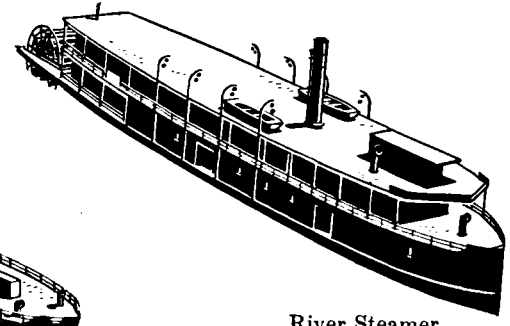
PASSENGER VESSELS



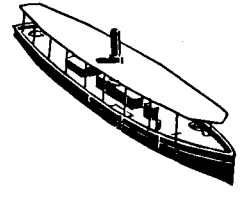
Burma Side-Wheeler



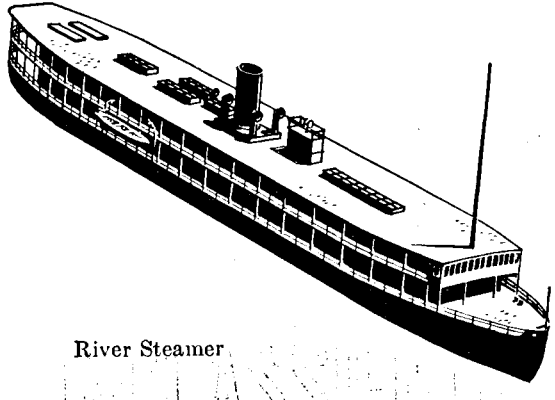
Passenger Steamer



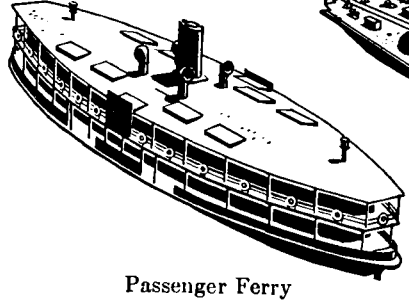
River Steamer
(Stern-Wheeler)



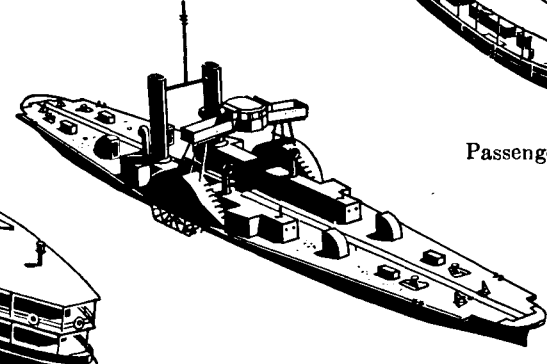
Passenger Launch



River Steamer



Passenger Ferry



Train Ferry

On the rivers and on the smaller sea and ocean areas of the Far East, vessels designed to handle a large passenger trade appear in abundance. These ships vary in size, appearance, and characteristics, from the smallest launch to large coastal passenger ships. However, for the purposes of this publication, only those vessels under 1,000 gross tons (200 feet or less over-all length) are included.

SMALL PASSENGER STEAMERS

This category, including those vessels designed primarily to serve the passenger trade in coastal waters and over small open-water areas, consists of ships similar in many respects to English "Cross Channel" steamers or to American sound boats. They can often accommodate as many as five or six hundred first-class passengers, as well as a considerable amount of cargo. At the start of the war, the Japanese registry listed approximately 250 vessels in this category, most of which were "cargo passenger" types.

Wartime requisitioning of many of these ships has resulted in their use as hospital ships, troop transports, or supply vessels, as well as for various duties purely naval in character. Eight are known to operate as XAM's and eleven others as XYN's. In serving these military functions armament has been considered unimportant; most vessels, if armed at all, will be fitted with light machine guns and depth charges. However, 3"/40 guns are known to have been mounted.

The 668-ton ONDO MARU is typical of this category. Designed to accommodate over 400 first-class passengers and to carry a moderate cargo tonnage, the vessel is relatively fast (15 knots maximum) and is powered by Diesel engines; construction is steel. The AOI MARU, illustrated on page 35, is a larger type, accommodating 650 passengers, but with the blunt lines typical of small passenger vessels.

INSHORE PASSENGER TYPES

Since the inland waterways of the Orient serve as the main highways for both military and commercial traffic, water shipping is of major importance. The passenger vessels which ply these rivers, lakes, and inland seas vary

enormously in appearance and in the functions which they serve. In general, however, they may be classed in four large categories: River Steamers, Creek Steamers, Passenger Launches, and Dumb Flats.

During wartime, duties of these vessels, as in the larger coastal or seagoing types, has involved the ferrying of troops and use as hospital carriers. As hospital ships, they may be fitted to give full care to 50 or 100 wounded. In addition, a great many are known to have been assigned to the transport of supplies. Generally unarmed, these ships rely on camouflage for protection, since their shallow draft allows them to lurk close to shore covered with natural foliage and hiding in small coves.

River Steamers include vessels of all sizes, often as large as several thousand tons, but all retain the characteristic low freeboard, shallow draft, and block-like superstructure formed by numerous decks. Except for a few modern Diesel types, river steamers burn coal or wood and use either underwater propellers or paddle wheels for propulsion. Speeds often range as high as 15 knots on the larger types. While the top deck is usually given over to passenger use, and is invariably canvas covered, the lower decks may be used for cargo.

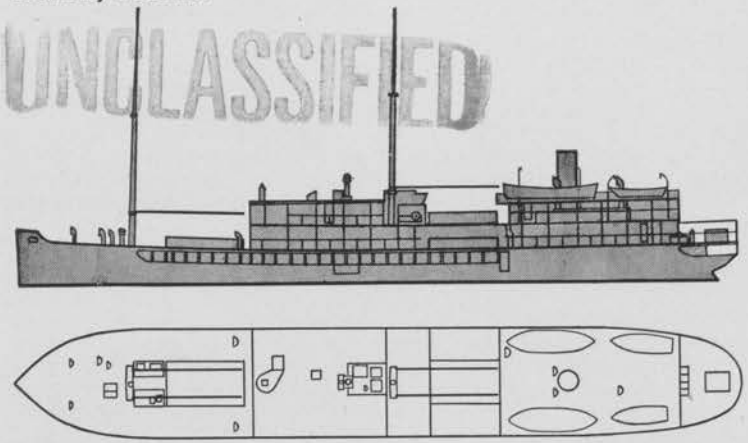
Creek Steamers are essentially river steamers on a smaller scale, designed to navigate the narrow, twisting, and shallow waters of the smaller rivers. They have been observed in abundance in the Burma area. All are double-decked, 80 to 135 feet in length, and may carry 200 to 350 passengers. Speeds reach 9 knots. These vessels, burning coal, may travel for 4 days without refueling, or an unlimited time if the fuel is wood.

Passenger Launches have been classified on the basis of a single deck, as opposed to the double decks typical of creek steamers. Most are 100 feet or less in length, burn coal or wood, cruise at 6 to 8 knots, and have an endurance of 2 to 3 days if coal is used. A maximum of 150 persons may be accommodated.

Dumb Flats (flats without self-propulsion), resemble common barges, although larger in size, and perform many of the same functions. They are built in several standard sizes with 250 feet over-all as a maximum. Generally flats are designated "oil," "railway," or "cargo," depending on their function.

COASTAL PASSENGER STEAMERS

TOHITI, TOBELO



NAVAL STATUS—Captured by Japanese.

AREA—Java.

YEAR BUILT—1929.

FLAG—Dutch.

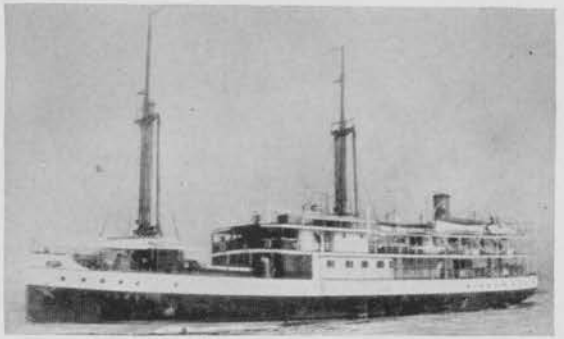
TONNAGE—982 (gross).

LENGTH—203′ (water line).

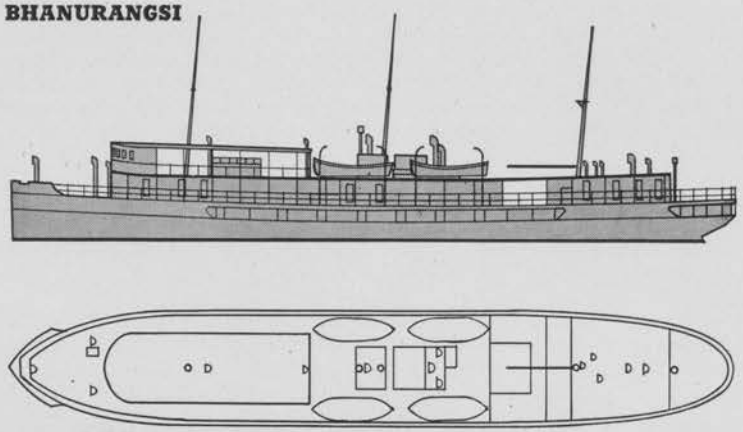
MACHINERY—Diesel.

FUEL—Oil.

NHP—247.



BHANURANGSI



AREA—Thailand.

YEAR BUILT—1927.

FLAG—Siamese.

TONNAGE—686 (gross).

LENGTH—200′ (water line).

BEAM—33′.

SPEED—13 knots (cruising).

MACHINERY—Diesel.

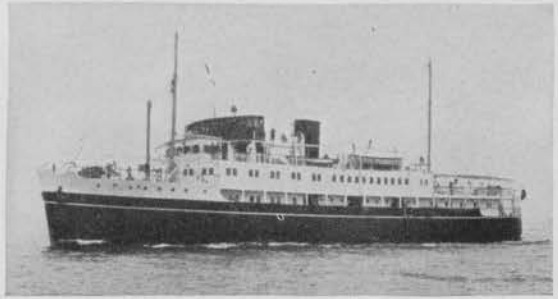
FUEL—Oil.

SCREWS—2.

NHP—196.

COASTAL PASSENGER STEAMERS

AOI MARU



AREA—Japan; built to serve Tokyo, Oshima Island, and Izu Peninsula.

YEAR BUILT—1933.

FLAG—Japanese.

PASSENGERS—650 accommodated.

TONNAGE—938 (gross).

LENGTH—193′ (water line).

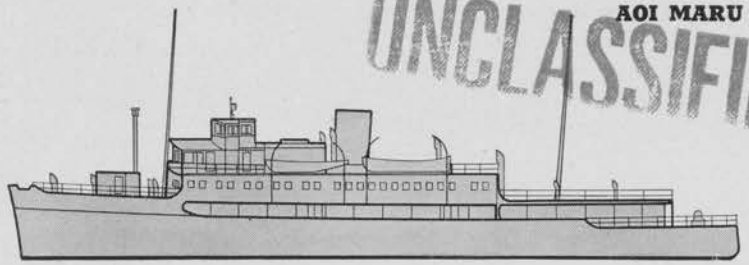
BEAM—32′.

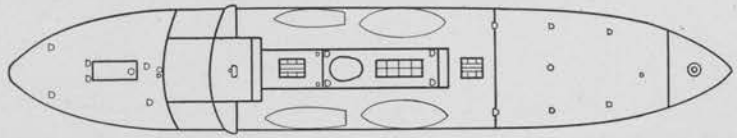
DRAFT—9.5′ (loaded).

SPEED—15 knots (max.).

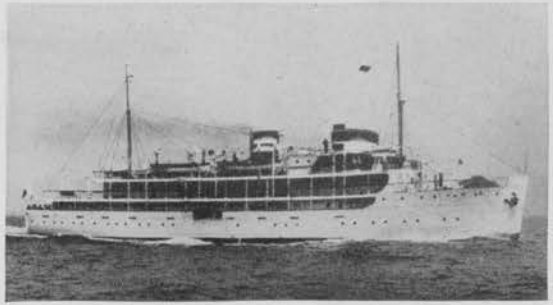
MACHINERY—Diesel.

FUEL—Oil.





SANSUI MARU



NAVAL STATUS—XAN; Indicator Net Tender; Government requisitioned.

AREA—Japan.

YEAR BUILT—1934.

FLAG—Japanese.

TONNAGE—812 (gross).

LENGTH—190′ (water line).

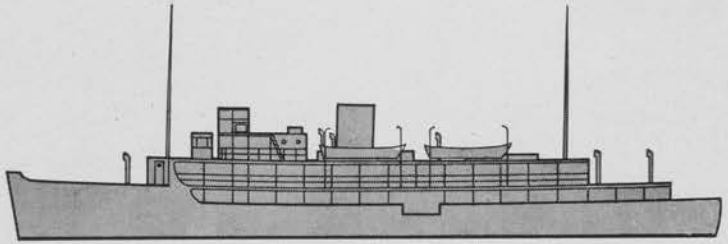
BEAM—31′.

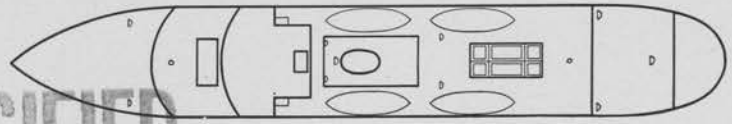
SPEED—12 knots (max.).

MACHINERY—Diesel.

FUEL—Oil.

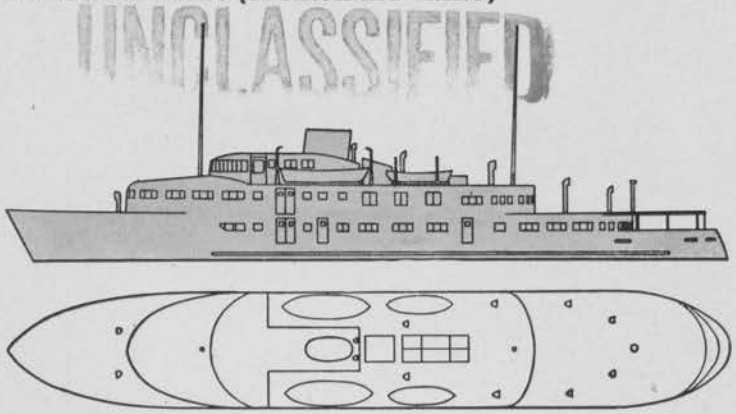
NHP—164.



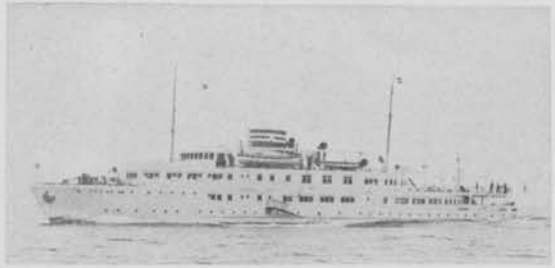


COASTAL PASSENGER STEAMERS

SHIROGANE MARU (or SIROKANE MARU)

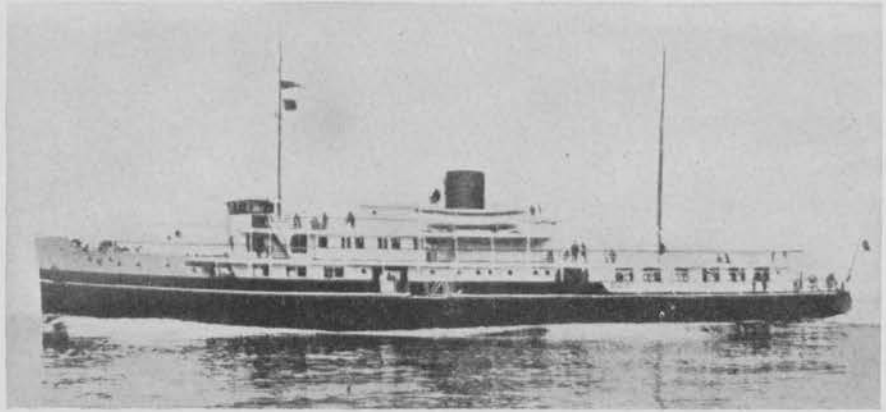


NAVAL STATUS—Government requisitioned.
AREA—Japan.
YEAR BUILT—1938.
FLAG—Japanese.
TONNAGE—929 (gross).
LENGTH—185′ (water line).
BEAM—31′.
SPEED—14 knots (max.).
MACHINERY—Diesel.
FUEL—Oil.
NHP—218.
REMARKS—Damaged at Kweilin, September 1943.



KIKU MARU

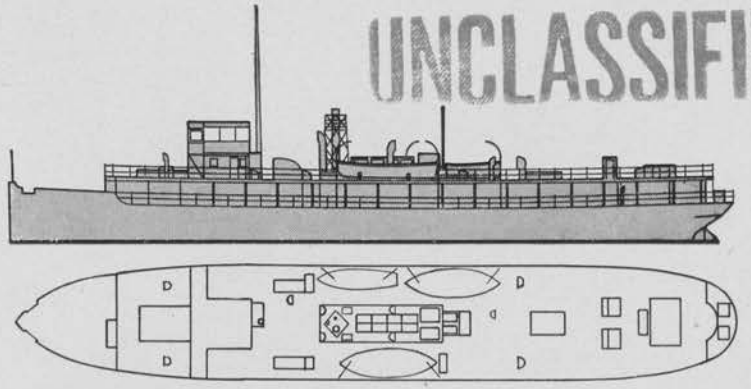
NAVAL STATUS—XAN; Government requisitioned.
AREA—Japan.
YEAR BUILT—1929.
FLAG—Japanese.
TONNAGE—760 (gross).
LENGTH—180′ (water line).
BEAM—30′.
SPEED—11 knots (cruising).
MACHINERY—Diesel.
FUEL—Oil.
NHP—163.



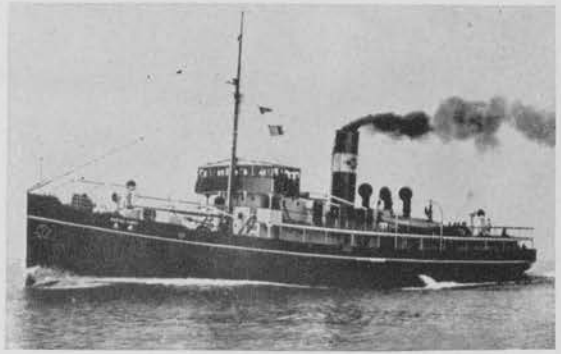
COASTAL PASSENGER STEAMERS

ONDO MARU, HAYATOMO MARU, MIHARA MARU

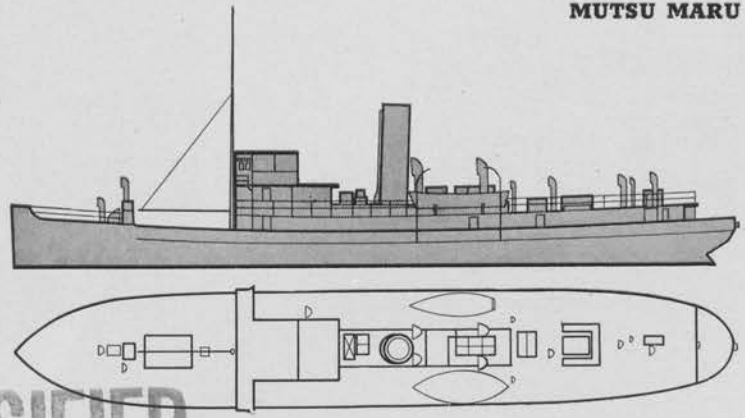
AREA—Japan.
YEAR BUILT—1923.
FLAG—Japanese.
TONNAGE—688 (gross); 285 (dead weight).
LENGTH—170′ (water line).
BEAM—28′.
SPEED—12 knots (maximum); 11 knots (cruising).
MACHINERY—Diesel.
FUEL—Oil.
NHP—194.



MUTSU MARU

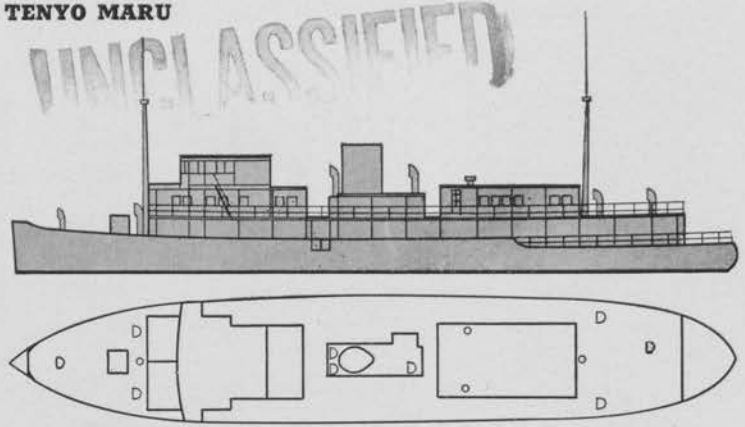


NAVAL STATUS—AP–AK.
AREA—Japan.
YEAR BUILT—1923.
FLAG—Japanese.
TONNAGE—520 (gross).
LENGTH—160′ (water line).
BEAM—27′.
SPEED—12 knots (cruising).

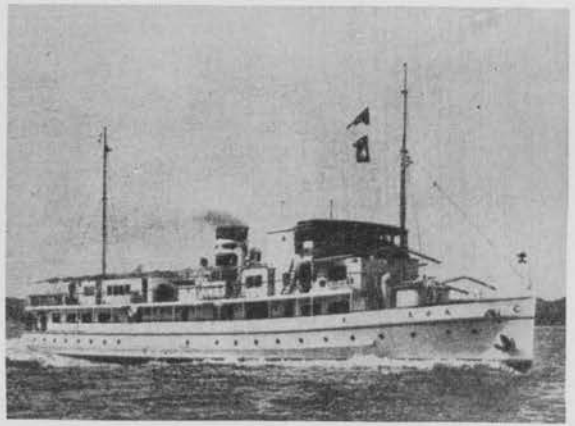


COASTAL PASSENGER STEAMERS

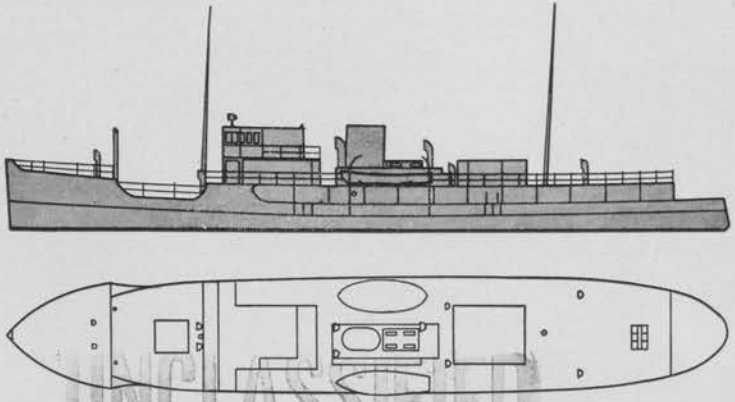
TENYO MARU



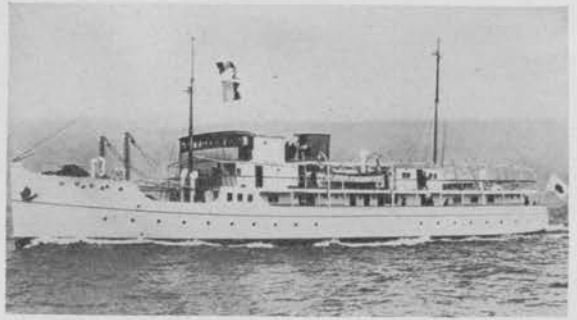
AREA—Japan.
YEAR BUILT—1930.
FLAG—Japanese.
TONNAGE—495 (gross).
LENGTH—160′ (water line).
BEAM—27′.
MACHINERY—Diesel.
FUEL—Oil.

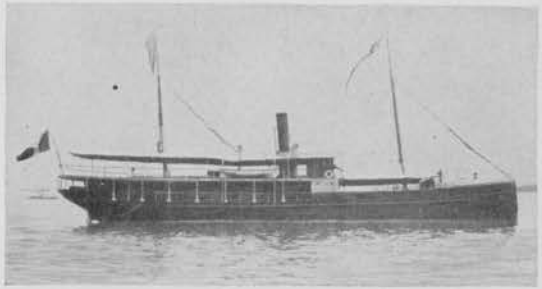


OKESA MARU

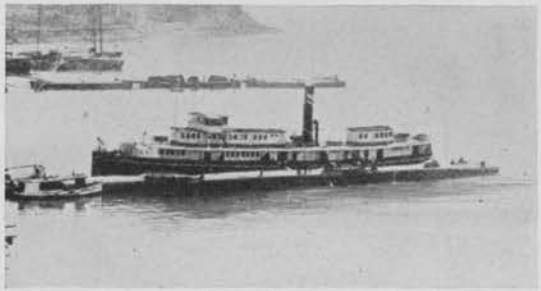


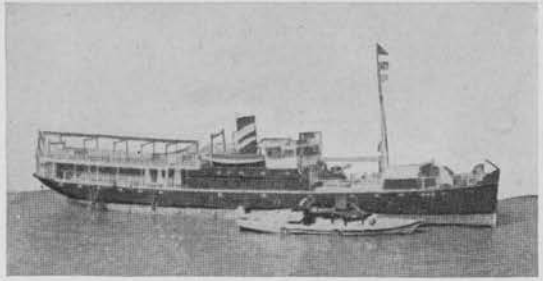
NAVAL STATUS—Government requisitioned.
AREA—Japan.
YEAR BUILT—1932.
FLAG—Japanese.
TONNAGE—488 (gross).
LENGTH—160′ (water line).
SPEED—14.4 knots (max.).
MACHINERY—Diesel.
R. P. M.—253.5.
FUEL—Oil.





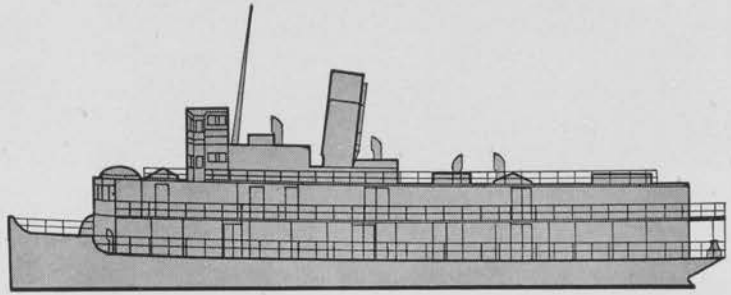
Unidentified ▲ Chinese / ▼ Japanese } Passenger Vessels

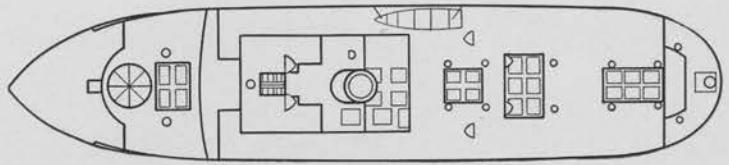


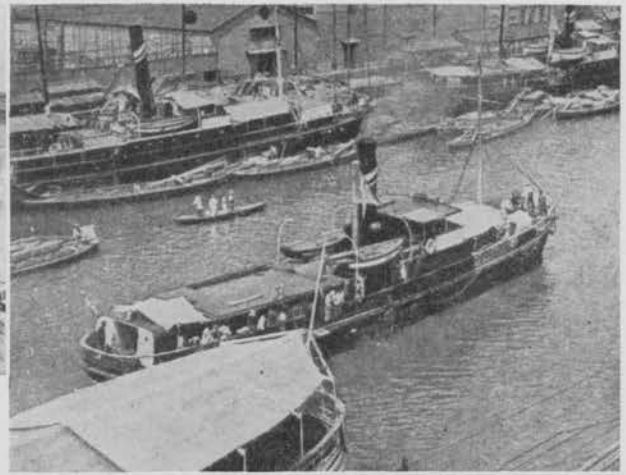


NAVAL STATUS—AP.
AREA—Japan.
YEAR BUILT—1923.
FLAG—Japanese.
TONNAGE—545 (gross).
LENGTH—140′ (water line).
BEAM—30′.
SPEED—11 knots (cruising).
MACHINERY—Steam turbines.
FUEL—Coal.
SCREWS—2.

SANYO MARU



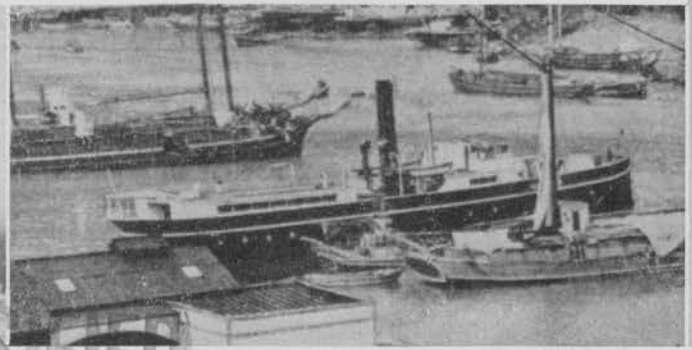


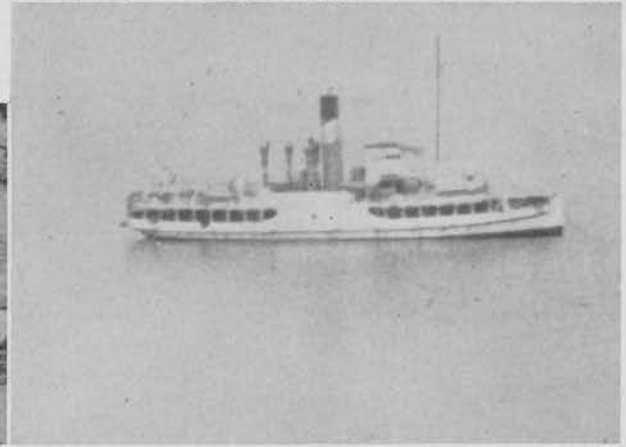


Except for those individual vessels shown on the preceding pages, the vast majority of coastal passenger vessels remain unidentified as to specific appearance.

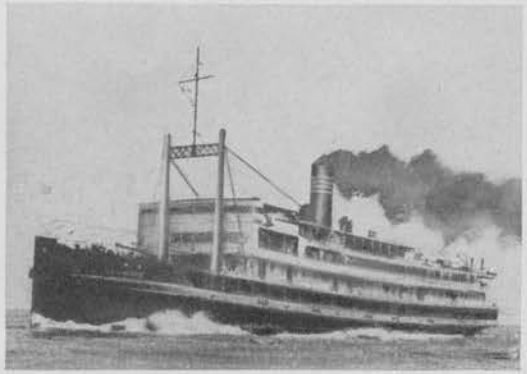
Most of these, however, are typified by the photos shown on this spread. Notice that the shade of difference is very slight between the coastal types shown on this page and the river steamers on the facing page.

For a detailed view of the vessels not illustrated, a comprehensive descriptive list is included in another section of this manual.





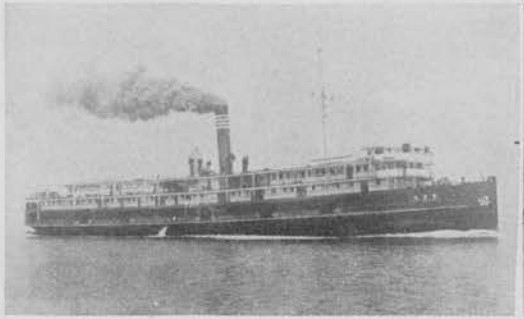
River passenger vessels range in size up to several thousand tons; in length over 300′. In this manual, they have been divided into three large categories for ease in recognition: River steamers, creek steamers, and passenger launches. A complete list of all known river steamers is included in the statistical section.



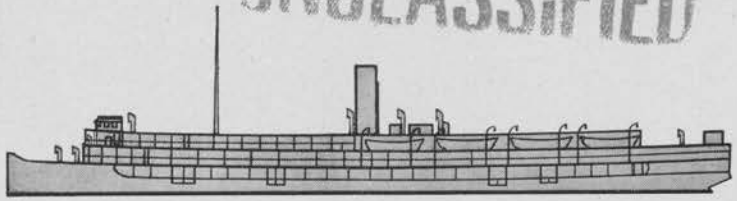
LO YANG MARU

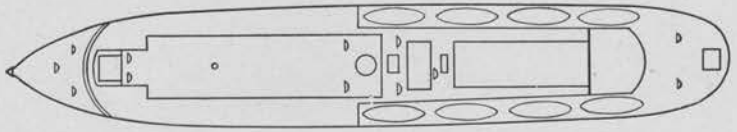
AREA—Japan.
YEAR BUILT—1929.
FLAG—Japanese.
TONNAGE—4,378 (gross).
LENGTH—330′ (water line).
BEAM—48′.
SPEED—11 knots (cruising).

HOYO MARU—No statistics available; name probably changed. ▼

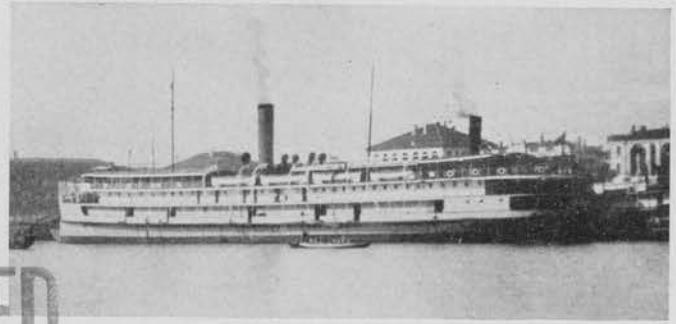


LOONG WO



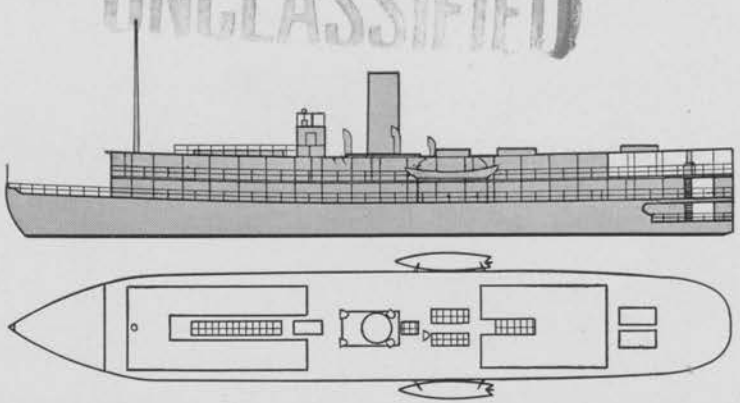


NAVAL STATUS—Captured at Hankow, 12 August 1941.
YEAR BUILT—1906.
FLAG—British.
TONNAGE—3,923 (gross).
LENGTH—330′ (water line).
BEAM—46′.
MACHINERY—Reciprocating steam.
FUEL—Coal.
SCREWS—2.
NHP—292.

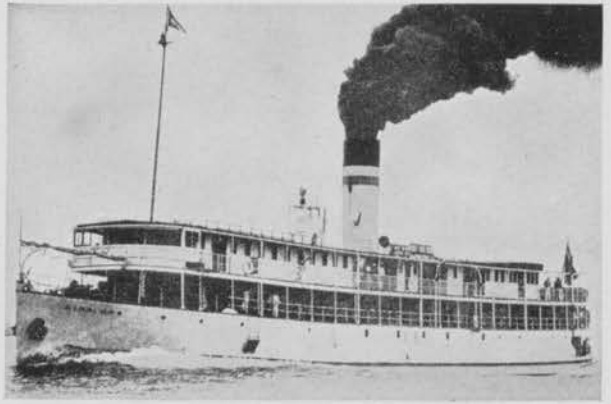


RIVER STEAMERS

LOONG MOW



AREA—China.
LENGTH—204′ (o. a.).
BEAM—31′.



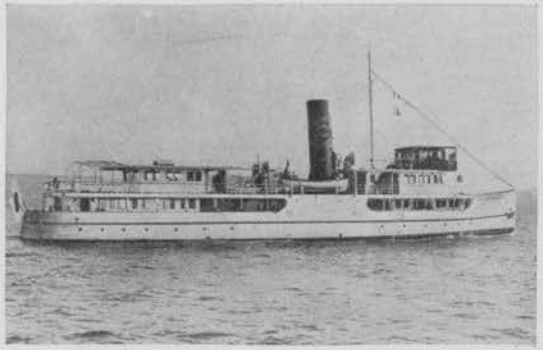
HSING MARU

AREA—Japan.
YEAR BUILT—1929.
FLAG—Japanese.
▼ TONNAGE—239 (gross).

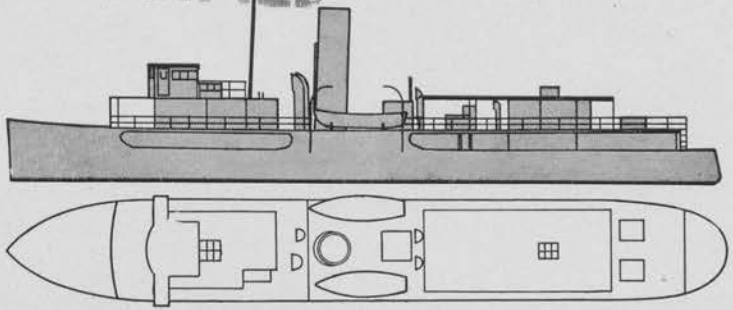
▼ Unidentified Chinese River Steamers. ▼

RIVER STEAMERS

AIOI MARU No. 15 (or AOI MARU)

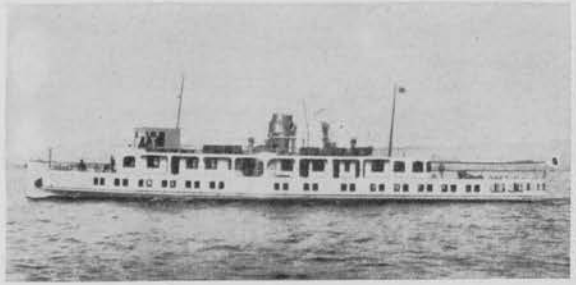


AREA—Japan.
YEAR BUILT—1924.
FLAG—Japanese.
TONNAGE—290 (gross).
LENGTH—140′ (water line).
BEAM—21′.
MACHINERY—Reciprocating.
FUEL—Coal.
NHP—50.



KEI-HAN MARU

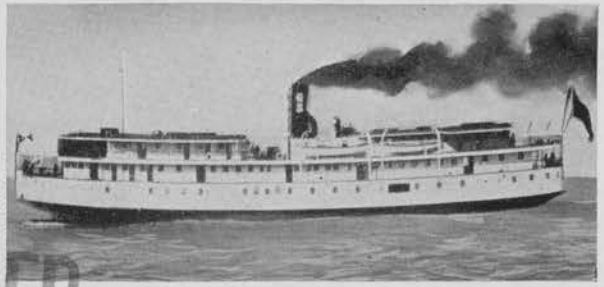
AREA—Japan.
YEAR BUILT—1928.
FLAG—Japanese.
TONNAGE—342 (gross).
LENGTH—160′ (water line).
BEAM—25′. ▼



Unidentified Japanese unit. ▼

HANG CHEONG

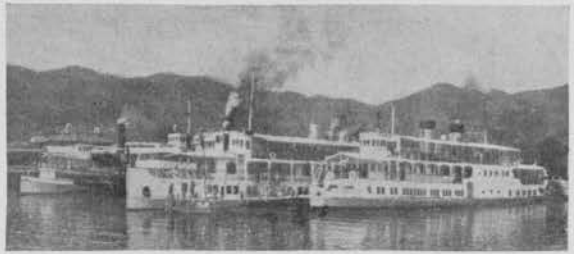
AREA—China.
FLAG—British.
TONNAGE—1,086 (gross).
LENGTH—176′ (water line).
BEAM—36′. ▼



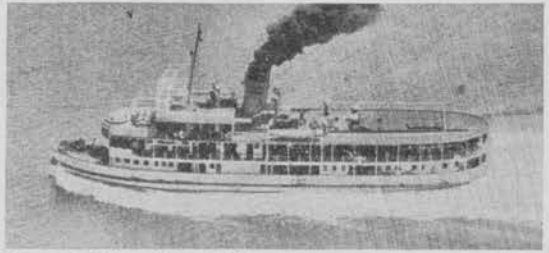
CHIA LING MARU

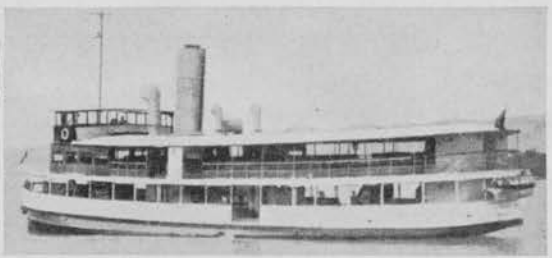
◀ AREA—Japan.
YEAR BUILT—1927.
FLAG—Japanese.
TONNAGE—366 (gross).
LENGTH—130′ (water line).
BEAM—24′.
MACHINERY—Diesel.
FUEL—Oil.
SCREWS—2.

MIDORI, SHIRADORI, and KYOSAKA MARU, ▼ which operate on Lake Biwa, Japan.

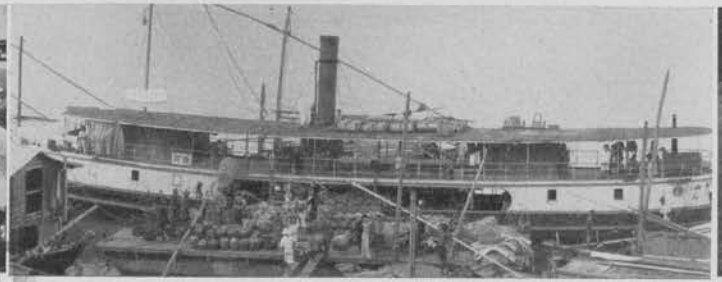


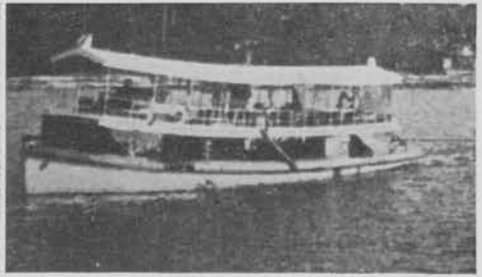
▼ Small modern Japanese and Chinese river steamers. ▼



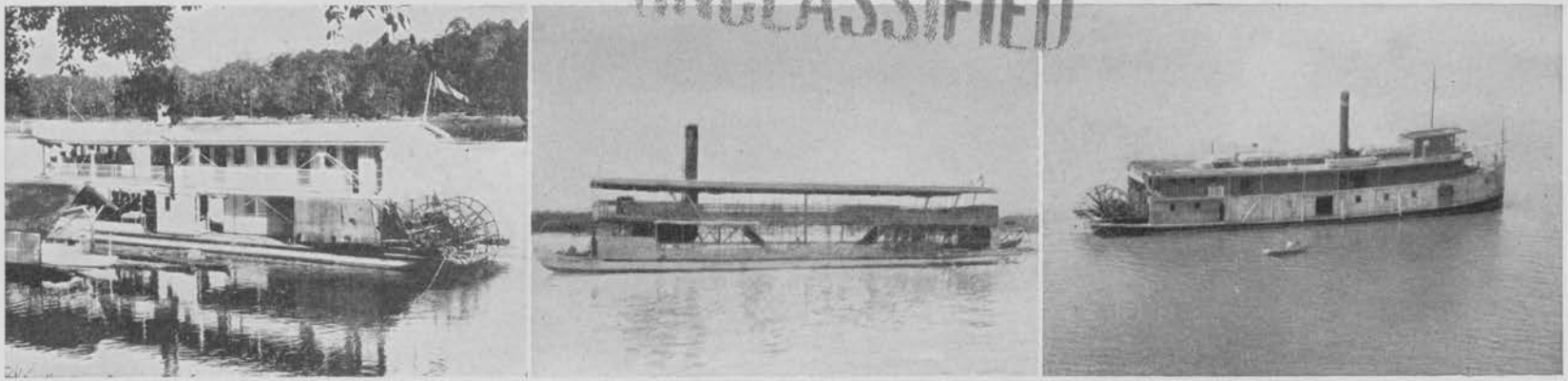


From left to right—Hongkong river ferries, a typical small Malayan steamer for coastal and river service, and Siamese passenger steamer also serving ▼ as a tow launch.



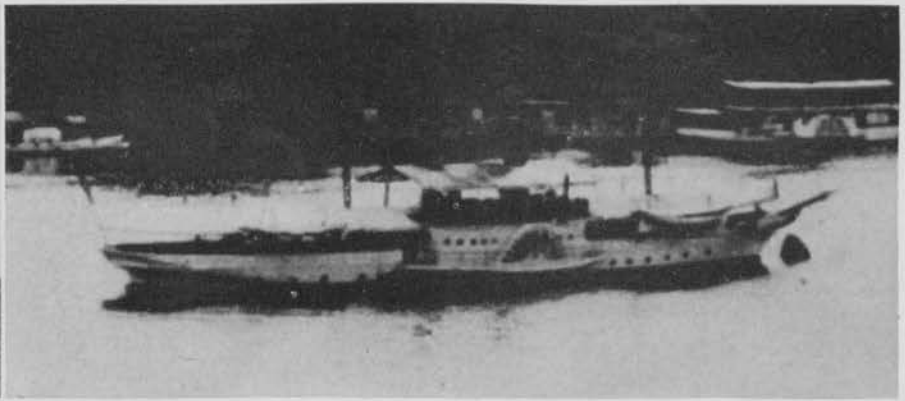


STERN-WHEEL RIVER STEAMERS



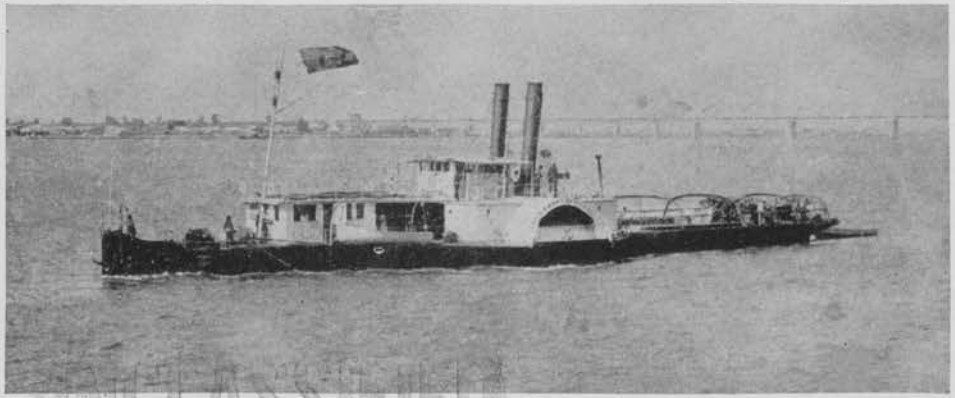
▲ This type of river boat has become increasingly popular due to the need for supplies in otherwise inaccessible areas. Shown above from left to right are ▲ two Borneo types, one with, the other without passenger accommodations, and an Indo-Chinese cargo-passenger type ferrying a deck load of bombs.

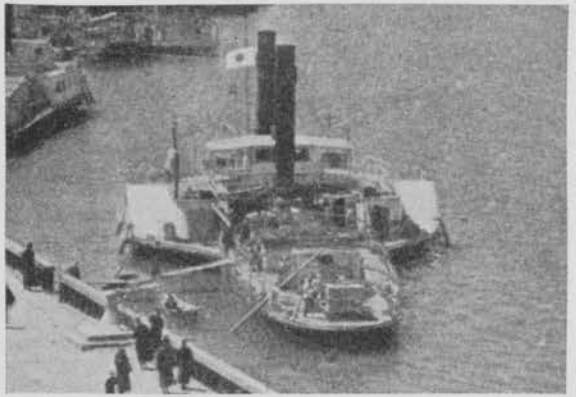
Below—A typical Manchurian (SUNGARI River) paddle-wheeler, a 132′, 730-passenger Burmese vessel, and an Indo-Chinese type. Notice that the lower ▼ deck of these vessels is fitted for animals or cargo, while the upper deck accommodates passengers. These ships are invariably roofed over. ▼



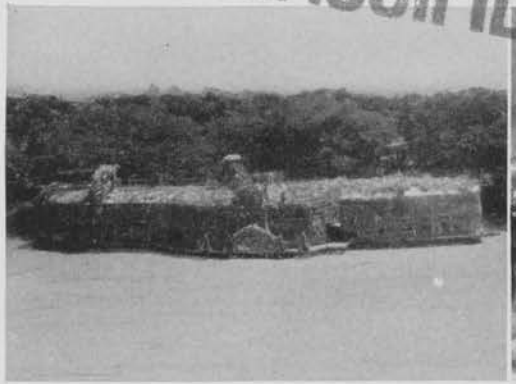
Photos on this page show the variety of types existing in this group. At left is a typical modern two-decker which operated on the Sungari River (Manchuria). At right is an old two-stack, one-deck cargo type built for coastal transport around Siam. Notice the curved, yacht-like lines.

The third type shown below serve mainly as towboats for river barges, but can also be used as passenger and cargo carriers. The ships shown in these photos are also Sungari River steamers. Notice the unmistakable bulge amidships on all these vessels.





BURMESE SIDE-WHEELERS

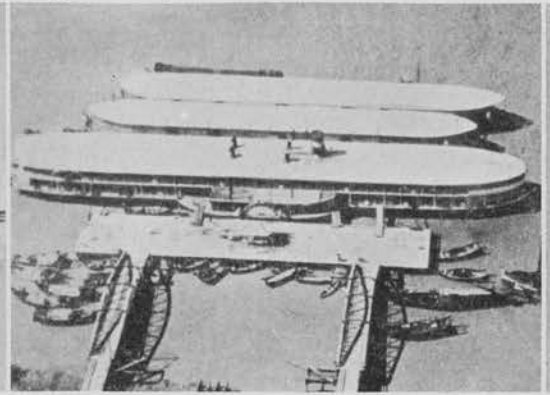


This type of shallow-draft passenger steamer is even more in evidence in the Orient than the stern-wheel type. The largest of these on which information exists are found in Burma, where 15 or more serve military needs on the Irrawaddy River and its tributaries. Some of these craft range up to 325′ over all and can carry a cargo of 1,500 tons or up to 5,000 passengers. All serve double duty as towboats for the abundant river "flats," and as such are able to maintain a speed up to 14 knots, providing traffic and tow-load are light. Fuel used is normally a mixture of coal and wood, although each may be burned separately.

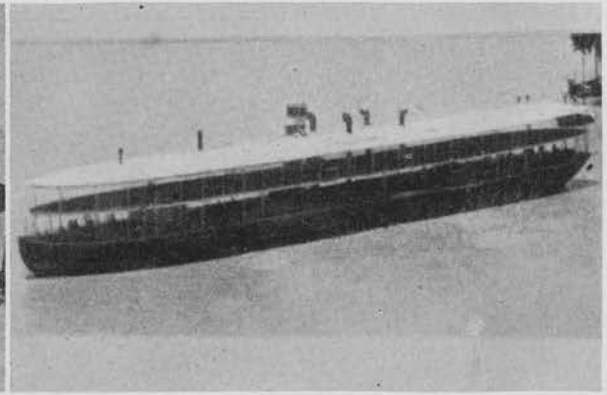
Photographs at the left show some clever natural camouflage used to hide these large ships from aerial attacks.

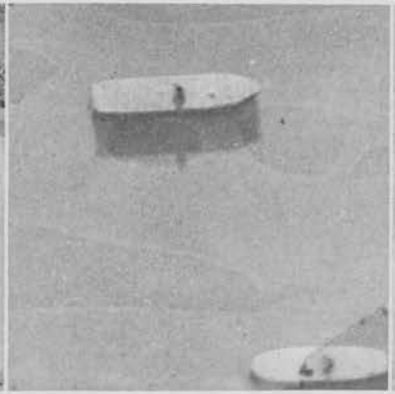
Burmese paddler similar to type shown above. ▼

An IRRAWADDY paddler and two dumb cargo flats. ▼



Sidewheeler with sponsons removed for mooring purposes. ▼

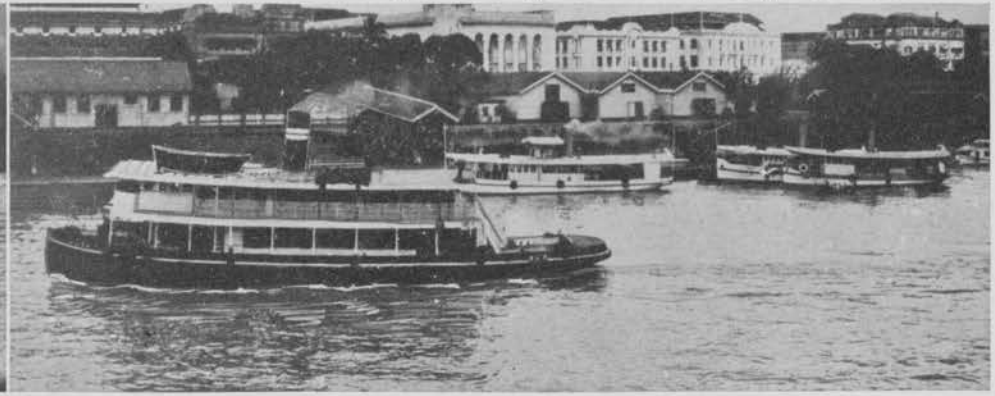


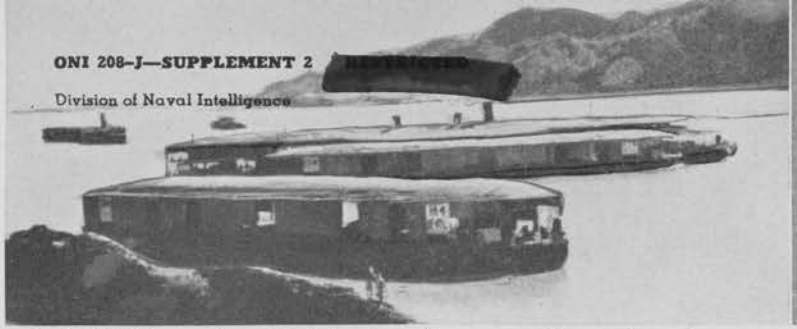


These vessels are small river steamers ranging upwards from 100′ over all, with two or more passenger decks. The above photographs show typical creek steamers found in the Burma area.

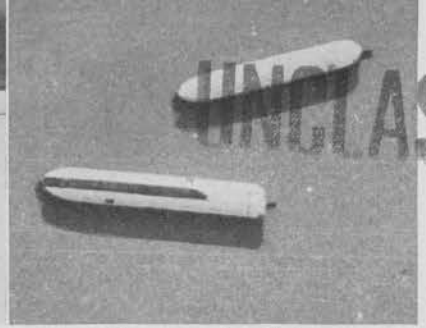
Photo below shows an exceptional Siamese type. This ship is essentially a passenger launch, but is fitted with two decks.

Modern type of Burmese creek steamer with a large towing platform on the fantail. Boats in the background are typical one-deck passenger launches.





▲ A 200′ Burma river flat being towed by an even longer river steamer (two-deck).

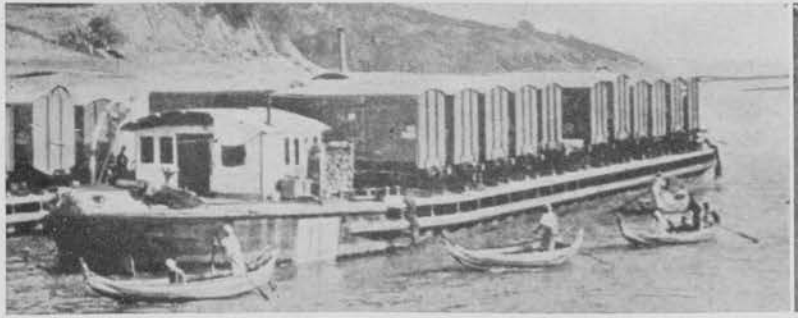


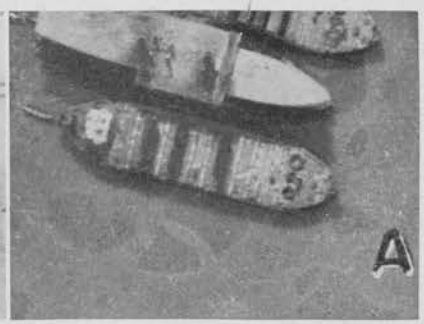
▲ Burmese river flats.

RIVER FLATS AND BARGES

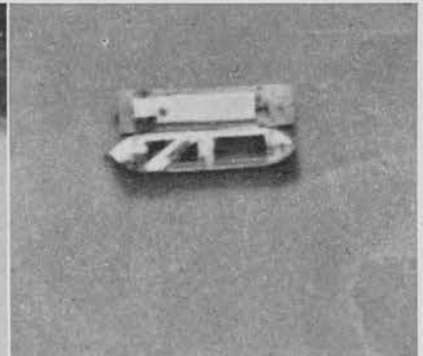
All of these craft are steel-hulled, dumb (non-self-propelled), and are usually towed alongside (in the case of flats) or behind paddle steamers and other towboats. Flats are merely large barges with a roofed-over hold. They range in size from 150′ to 250′ but maintain a maximum loaded draft of 5′ to 6′.

Both barges and flats have performed invaluable inshore transport service as general cargo carriers (supplies, oil, military equipment, etc.), but use is now being limited by the shortage of towing vessels.





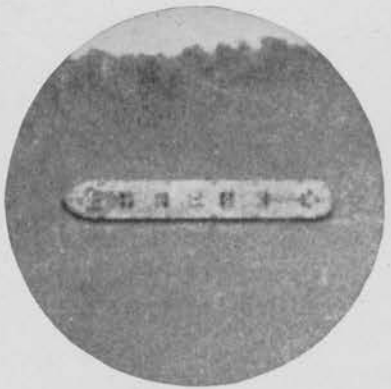
▲ Photo above shows "railway flats" with freight cars aboard. Note the paddler towboat between the two flats in recco shot. ▲



◀ Photos at left show several oil and cargo barges, differentiated from flats by their open holds and lack of roof cover.

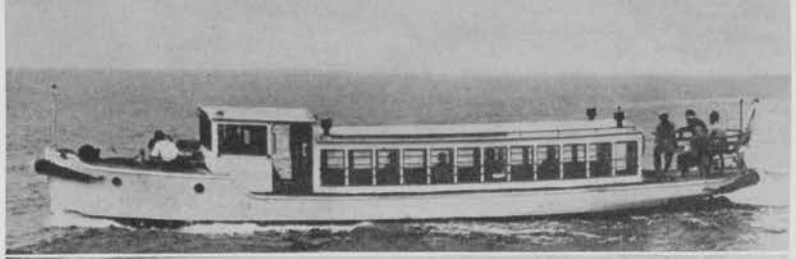
BURMESE RIVER FLATS AND BARGES

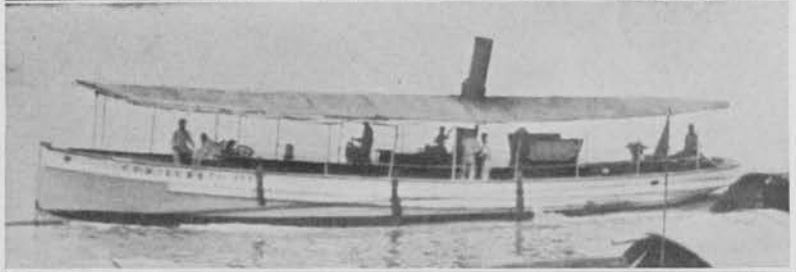
▲ Above are two before-and-after sequences showing instances of improvised dummy ships observed in Rangoon. The upper left 250′ cargo flat had two 40′ to 50′ sections cut out of the roof and sides of the superstructure, giving the vessel a three-island merchant ship appearance. A bridge and funnel were added amidships. The general effect was convincing, but the absence of any masts is noticeable.

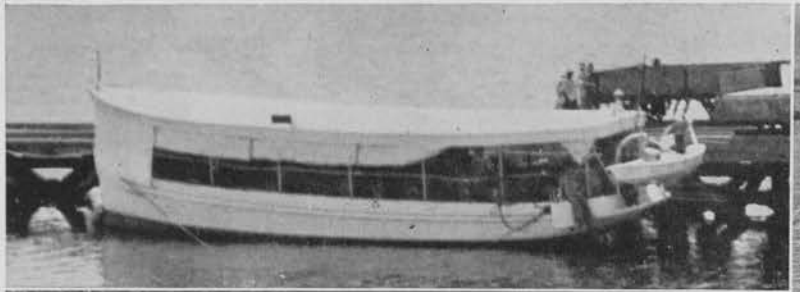


This 200′ by 27′ roofless cargo flat was modified by placing a dummy bridge and funnel amidships with a deckhouse fore and aft. Hull shape and lack of freeboard would give this camouflage away. Instances of timber rafts converted to dummy vessels have also been observed.

Photo taken of KAPHA, Burma, showing a variety of side-wheelers, cargo flats and barges, two creek steamers, passenger launches, and a nest of native craft.







Passenger launches are small steamers, 100′ or less in length, with a single deck and steam, Diesel, or gasoline power. The most predominant type throughout the Far East is typified by the upper bank of photos on this page. Most of these craft will usually have a prominent stack and a canvas roof, with minor variations influenced by the type of power used. These launches serve as both passenger and cargo carriers and tow boats. As the craft get smaller in size they resemble the motorboats shown below, which are basically the same in appearance all over the world.

PASSENGER FERRIES

Because of its geography, Japan has had to rely a great deal on ferries of all sorts to promote efficient commercial traffic. This is also true of the river and coastal areas of the mainland. The smaller types shown on these pages are representative of the short-run harbor and river craft designed for passenger and vehicle traffic. Notice that the single-ended types resemble and overlap the "river steamer" group.

MOJI MARU

NAVAL STATUS—Government requisitioned.
AREA—Japan; built to serve between Moji and Shimonoseki. Made 49 round trips per day.
YEAR BUILT—1914.
CAPACITY—1,055 third-class passengers.
TONNAGE—388 (gross); 527(dead weight).
LENGTH—121′ (water line).
BEAM—30′.
FUEL—Coal.

MATSU MARU No. 1, No. 2

NAVAL STATUS—Government requisitioned.
AREA—Japan.
YEAR BUILT—1937.
FLAG—Japanese.
TONNAGE—129 (gross).
LENGTH—85′ (water line).
BEAM—18′.
MACHINERY—Diesel.
FUEL—Oil.
SCREWS—2.

DENTETSU MARU No. 1, No. 2, No. 3, No. 4, No. 5, No. 6

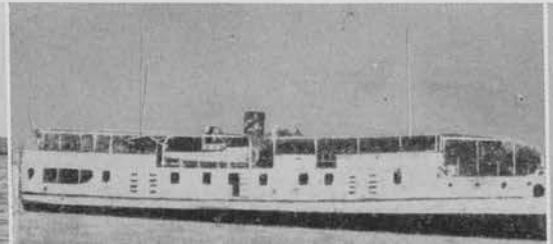
AREA—Japan. YEAR BUILT—1925.
CAPACITY—170 passengers.
TONNAGE—59 (gross).
LENGTH—55′ (water line).
BEAM—14′.
SPEED—6.5 knots (cruising).
MACHINERY—Semi-Diesel.
FUEL—Oil.

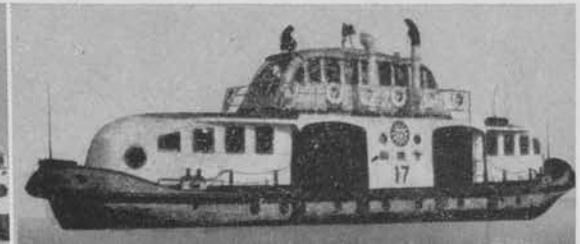
SHUN AN

AREA—China; built to serve between Amoy and Changchowfu, calling in at Shima.
YEAR BUILT—1932.
FLAG—Chinese.
CAPACITY—100 tons (cargo), 300 passengers.
LENGTH—110′ (water line).
BEAM—22′. DRAFT—7′.
SPEED—12.5 knots (max.).
MACHINERY—Diesel. FUEL—Oil.

SHANGHAI GOVERNMENT FERRY No. 17

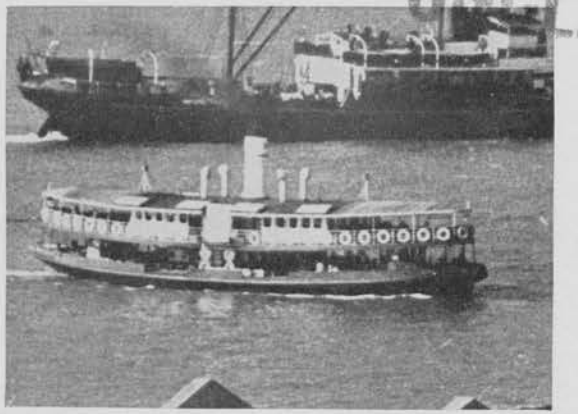
AREA—China; built to serve between Shanghai and Pootung.
YEAR BUILT—1936.
FLAG—Chinese.
LENGTH—220′ (water line).
BEAM—21′.
DRAFT—5′.
MACHINERY—Diesel.
FUEL—Oil.



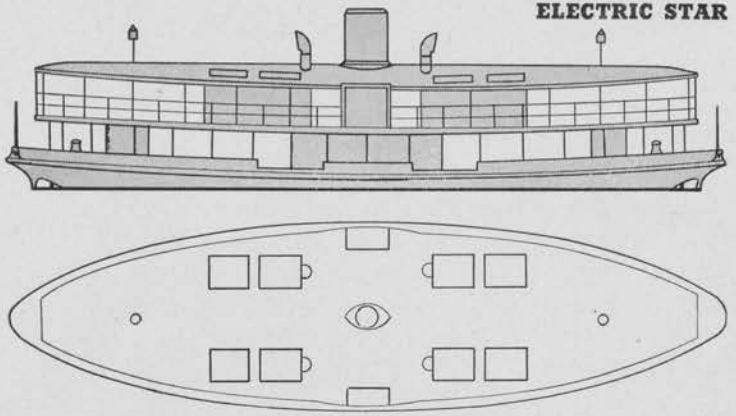


PASSENGER FERRIES

ELECTRIC STAR

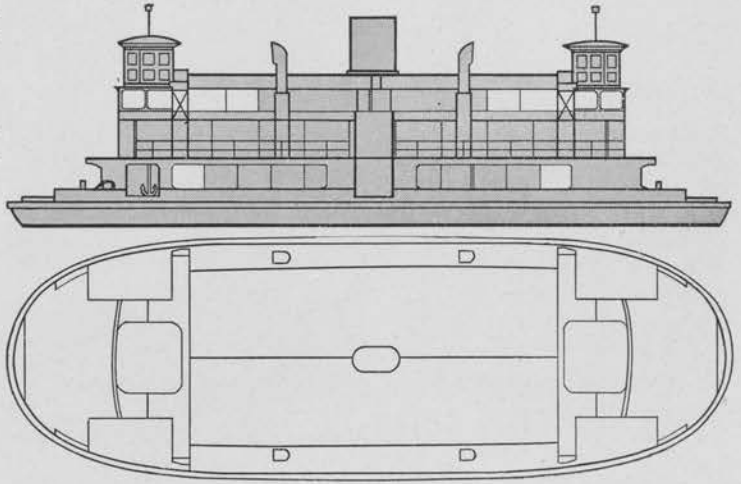


AREA—China; built to serve between Hongkong and Kowloon.
YEAR BUILT—1933.
FLAG—British.
TONNAGE—164 (gross).
LENGTH—116′ (water line).
BEAM—22′.
SPEED—10.4 knots (max.)
MACHINERY—Diesel.
FUEL—Oil.



MAN KUNG, MAN KIM, and MAN YEUNG

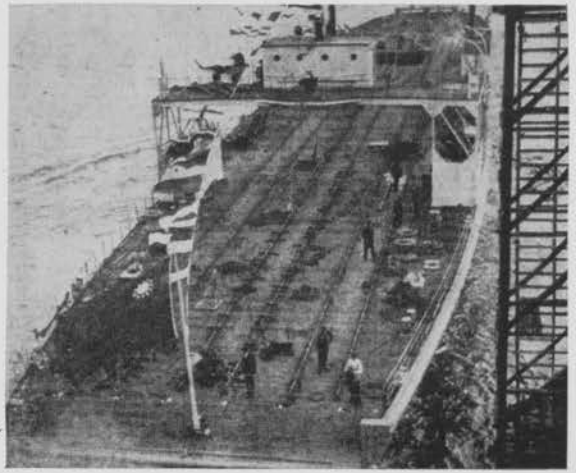
AREA—China; built to serve between Hongkong and Kowloon.
YEAR BUILT—1933.
FLAG—British.
CAPACITY—260 1st-class, 160 2d-class, 265 3d-class passengers.
TONNAGE—371 (gross).
LENGTH—128′ (water line).
BEAM—42′
DRAFT—8.8′.
SPEED—10.2 knots (max.).
MACHINERY—Diesel.
R. P. M.—1,400 to 1,600.
FUEL—Oil.
SCREWS—2.
NHP—440.



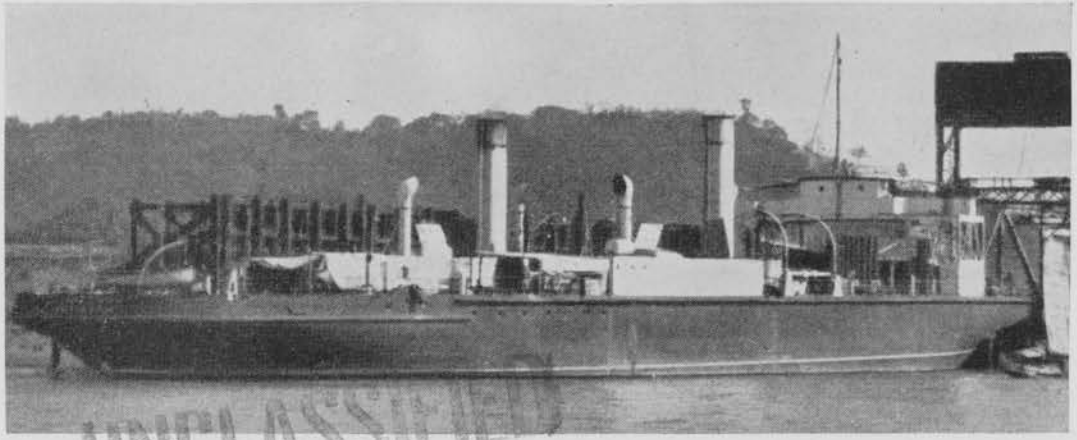
INLAND TRAIN FERRIES

The larger inland sea and coastal train ferries are illustrated in the basic manual, ONI 208–J (Revised). Those typified on these pages represent only the smallest types in river and harbor service.

These vessels in general will range up to 500 gross tons, carry approximately 7 to 10 cars at a time, and are intended for very short runs only; as for example, from Honshu to Kyushu. Their adaptability to military traffic is obvious for inshore work. As in the case of other ships, the newer ferries are mostly Diesel-powered, the others steam-driven.

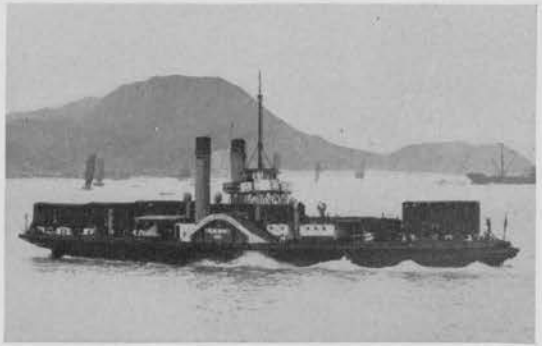


▼ CHANGIANG (or CHANGKIANG) ▶



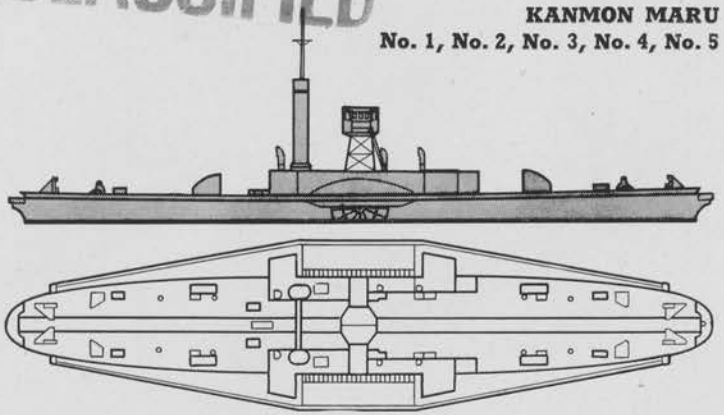
AREA—China; built to serve Yangtze River between Nanking and Pukow.
YEAR BUILT—1933.
FLAG—Chinese.
CAPACITY—Three trains of 7 wagons each.
TONNAGE—2,862 (gross); 1,550 (dead weight).
LENGTH—361′ (water line).
BEAM—56′.
MACHINERY—Reciprocating.
FUEL—Coal.
NHP—246.

INLAND TRAIN FERRIES



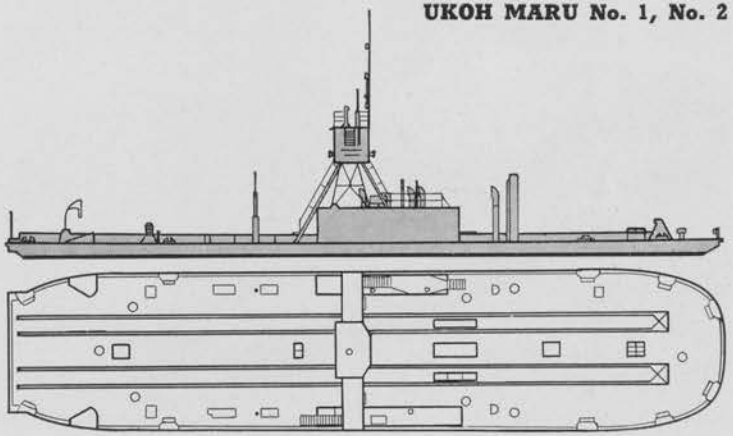
AREA—Japan.
YEAR BUILT—1919.
FLAG—Japanese.
TONNAGE—463 (No. 1, No. 2), 493 (No. 3, No. 4), 502 (No. 5) (gross).
LENGTH—176′ (water line).
BEAM—26′.
MACHINERY—Reciprocating.
FUEL—Coal.
NHP—87.

KANMON MARU
No. 1, No. 2, No. 3, No. 4, No. 5



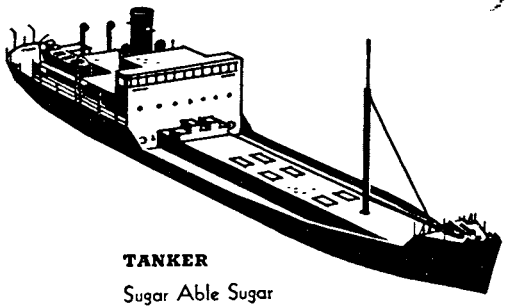
AREA—Japan; built to serve the straits between Aomori and Hakodate and between Shimonoseki and Fusan, and principal coaling centers of Japan.
YEAR BUILT—1929.
FLAG—Japanese.
TONNAGE—313 (gross).
LENGTH—150′ (water line).
BEAM—32′.
DRAFT—5′6″.
SPEED—8.5 knots (cruising).
MACHINERY—Diesel.
FUEL—Oil.
SCREWS—2.

UKOH MARU No. 1, No. 2

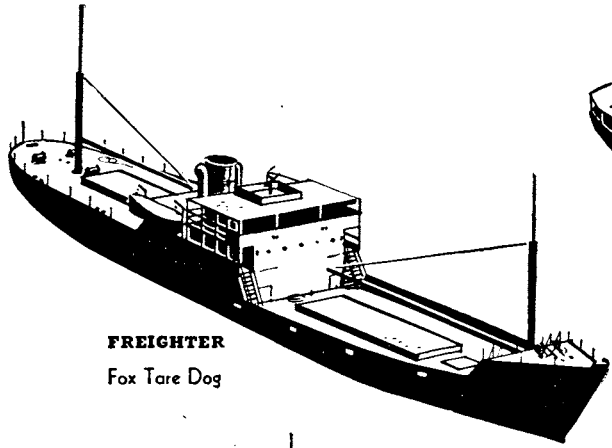


55 Notice general resemblance of this ship to the side-wheelers shown under Passenger Steamers.

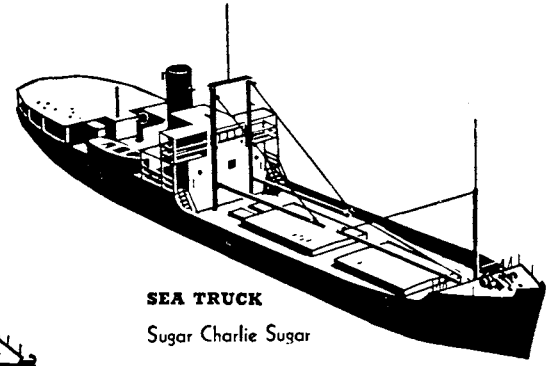
CARGO CARRIERS



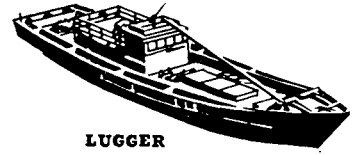
TANKER
Sugar Able Sugar



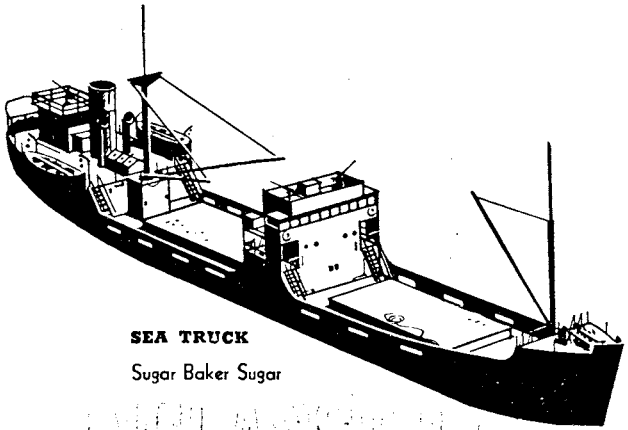
FREIGHTER
Fox Tare Dog



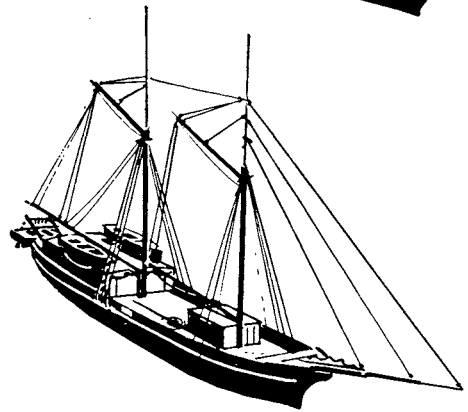
SEA TRUCK
Sugar Charlie Sugar



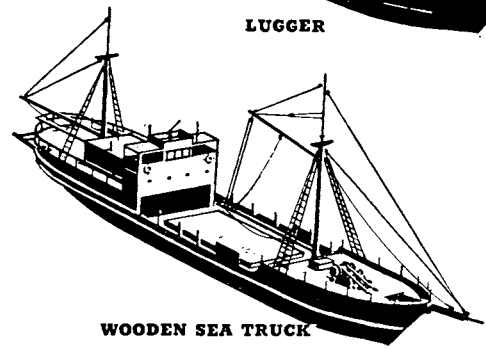
LUGGER



SEA TRUCK
Sugar Baker Sugar



SCHOONER FREIGHTER



WOODEN SEA TRUCK
Sugar Dog

Over one-third of the merchant tonnage observed in Japan's ports today is allocated to vessels of 1,000 gross tons or less. As tightening aerial and naval patrols make further inroads on Japanese shipping, the enemy will be forced to rely even more on small freighters and tankers in a desperate effort to maintain supply lines.

As in other small craft groups, the cargo carriers vary widely in appearance, but with the exception of sailing freighters, similarity in basic design features is sufficient to permit application of the JMST method of coding and reporting. A small number of pre-war cargo types are marked by bridge and stack amidships (Fox Tare Dog), but a large majority of small merchantmen are engines-aft types, with or without a forward island, and consequently are coded in the "Sugar" division of the JMST code. Other expressions covering groups which do not necessarily fall into appearance categories have been adopted. The term "sea truck" (KAIJO TORAKKU) is generally applied to cargo carriers of 100 to 1,000 gross tons in size; freighters smaller than 100 gross are known as "luggers."

Fox Tare Dog

The small freighter transport, generally of pre-war design, is a smaller counterpart of its larger brothers and is marked by bridge and funnel amidships or slightly aft of amidships. Characteristic of the "Dog" classification are the three hatches, two forward and one aft, and the off-center mainmast.

Sugar Charlie Sugar, Sugar Baker Sugar, Steel Sea Trucks

In accordance with other trends in standardization, the "economy hull" (sharp stem, angular shape, broad beam in relation to length, cruiser stern) is in widest production today. Most common of the "economy design" sea trucks is the standard Type "E" (or its modification), an 850-ton collier type built in five prefabricated sections. Propulsion may be either Diesel or reciprocating—there have been rumors of conversion to coal for fuel as Japan's oil reserves are diminished, and it is possible that the tall, coal burner stack will again make its appearance.

Sugar Dog, Wooden Sea Truck

Representatives of the wooden sea truck group can be noted in any Japanese harbor today and have been observed building on small ways scattered from the northernmost Kuriles to the South Seas. These ships are slow, Diesel-powered, marked by foremast, generally at break in forecastle, single forward hatch, superstructure aft, small funnel, and mainmast abaft stack. Arbitrary size range has been set at 100–120 feet, but may vary at either extreme.

Sugar Dog, Lugger

The "lugger" is a smaller counterpart of the sea truck. Originally a fishing type, identity as a cargo type is dependent on the size of its single hatch forward. One collapsible mast is stepped forward, and auxiliary sails are sometimes used to supplement a small Diesel or gasoline engine. These vessels, with wooden sea trucks, are the primary components of the famous wooden shipbuilding program. Although the Japanese have advertised this program through widespread propaganda, it is doubtful that production goals have been attained.

Sugar Able Sugar, Small Tanker

Innumerable reports have dealt with Japan's large tanker losses and the gravity of her fuel situation. A natural result has been a strenuous effort to construct small tankers based on the "economy hull design" which can be produced in mass quantity. The small standard tanker is very similar in size and appearance to the standard Type "E" sea truck.

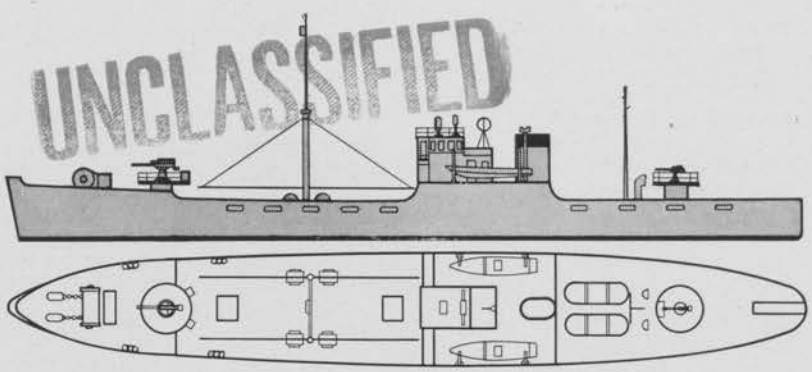
Sailing Freighters

Vessels rigged for oceangoing duty, whose employment is widespread, have been defined as freighters rather than native sailing types. Such types including schooners, sloops, ketches, barks, etc., are differentiated by arrangement of their sailing rig and are generally marked by the use of auxiliary power and appearance of permanent deck house aft. Evolution of the wooden sea truck from its sailing predecessor is apparent.

Wartime Operation

In addition to performing as merchantmen, small cargo ships may occasionally take on naval functions. A great many cargo types are known to operate as converted net tenders, or as small minesweepers. Generally, the small carrier is slow, lightly armed and consequently vulnerable to attack. In tropical areas the sea truck or lugger makes full use of protective vegetation, pursuing a course as close to shore as possible, ofttimes hiding in concealed inlets during daylight hours, following tactics similar to Japanese landing craft. Even the small lugger is equipped with some form of radio communication and serves as part of an aircraft or submarine warning system.

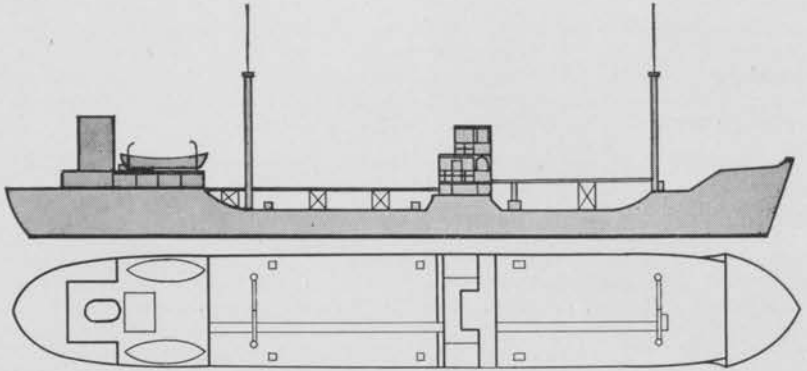
NAVAL TANKERS



KINESAKI (ex AG NANSHIN), HAYASAKI, SHIRASAKI, ARASAKI

NAVAL STATUS—Fleet auxiliaries.
FLAG—Japanese.
TONNAGE—946 (gross).
DIMENSIONS—232′ (o. a.) x 33′.
ARMAMENT—Capable of mounting two 3″/40 guns, one on the forecastle and one at the stern.
REMARKS—KINESAKI units are listed by the Japanese as AO's, although they probably also are used as supply ships and are equipped for repair work. KINESAKI has been reported doing tender duty.

COASTAL TANKER "Sugar Baker Sugar"



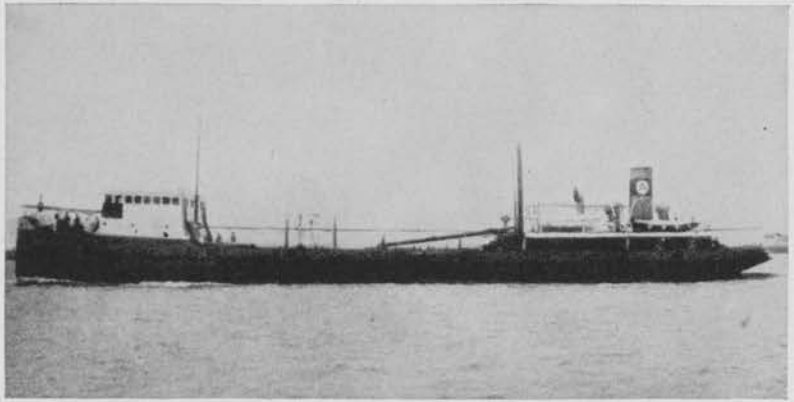
HADACHI MARU (or HANEDATI MARU)

NAVAL STATUS—XAO; Government requisitioned.
AREA—Japan.
YEAR BUILT—1936.
FLAG—Japanese.
TONNAGE—999 (gross); 1,350 (estimated dead weight).
DIMENSIONS—216′ (water line) x 32′.
SPEED—10.5 knots (cruising).

▼ Two units photographed at Rabaul, 2 November 1943.

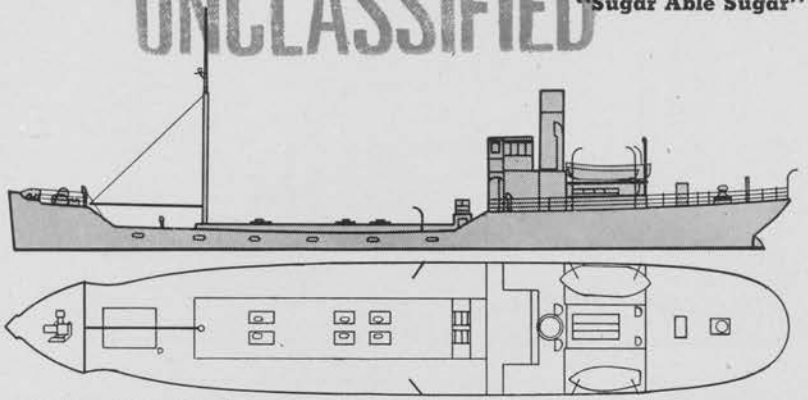
▼ HAYASAKI at Simpson Harbor, Rabaul, same date.

COASTAL TANKERS
"Sugar Able Sugar"



HO KWANG

AREA—China; built for service on Yangtze River.
YEAR BUILT—1931.
TONNAGE—684 (gross); 1,200 (displ.).
DIMENSIONS—200′ (w. l.) x 32′ x 9.8′.
SPEED—9.3 knots (cruising).
MACHINERY—Diesel; r.p.m., 330. NHP—276.
REMARKS—Normal round trip 1,400 miles.

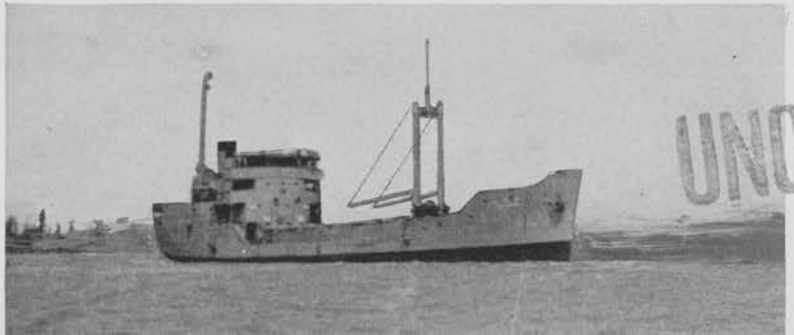


TAKATORI MARU No. 2

TYPE—Tanker, water-supply ship.
NAVAL STATUS—Japanese Government requisitioned.
YEAR BUILT—1931.
CAPACITY—84 tons (cargo); 50 tons (fuel bunker).
TONNAGE—500 (gross); 592 (dead weight).
DIMENSIONS—170′ (water line) x 27′.
SPEED—10 kts. (cruising); 12 (max.).
MACHINERY—Diesel; NHP, 117.
FUEL—Oil (1.9 tons used daily).

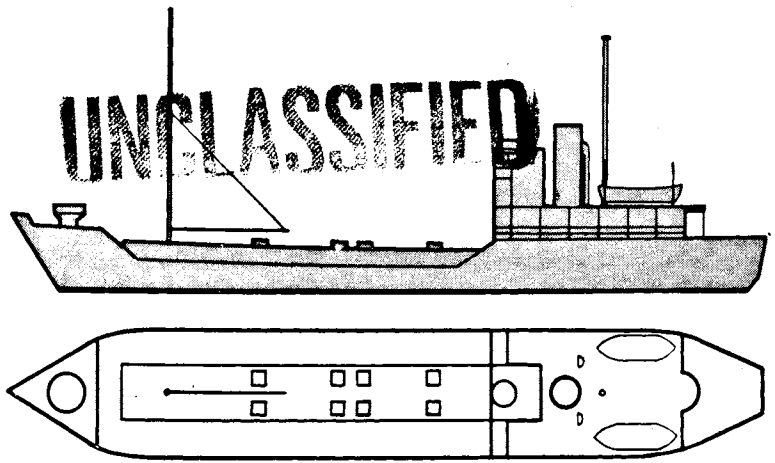
TOKYO MARU

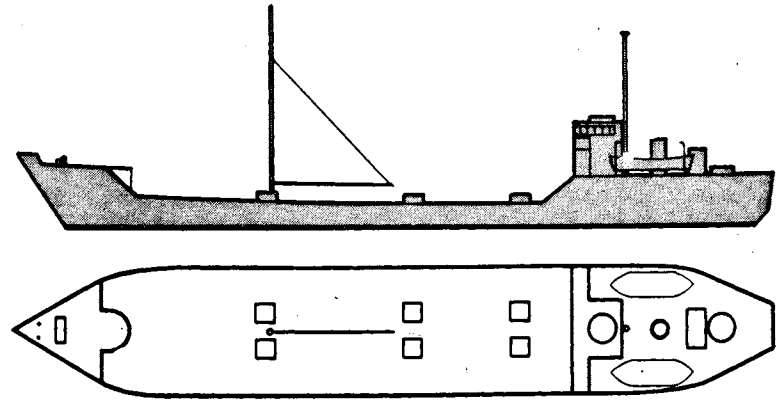
AREA—Japan. YEAR BUILT—1937.
TONNAGE—903 (gross); 1,089 estimated dead weight).
DIMENSIONS—198′ (water line) x 30′.
SPEED—10 knots (cruising).
MACHINERY—Diesel; NHP, 164.



FUNAGAWA MARU (ex FUNAGAWA MARU No. 38)

NAVAL STATUS—Japanese Government requisitioned.
YEAR BUILT—1929. TONNAGE—865 (gross), 1,034 (est. dead weight).
DIMENSIONS—185′ (water line) x 30′.
SPEED—9.5 knots (cruising).
MACHINERY—Reciprocating.
NHP, 67. FUEL—Coal.





GROSS TONNAGE—1,000.
DISP. TONNAGE—1,250 (loaded).
LENGTH—210′ (o. a.)?
BEAM—33.5′?
DRAFT—15.5′ (loaded).

SPEED—10 knots (normal cruising).
MACHINERY—Reciprocating
IHP—950.
CARGO BOOMS—One 1-ton.
CAPACITY—11,000 bbl.

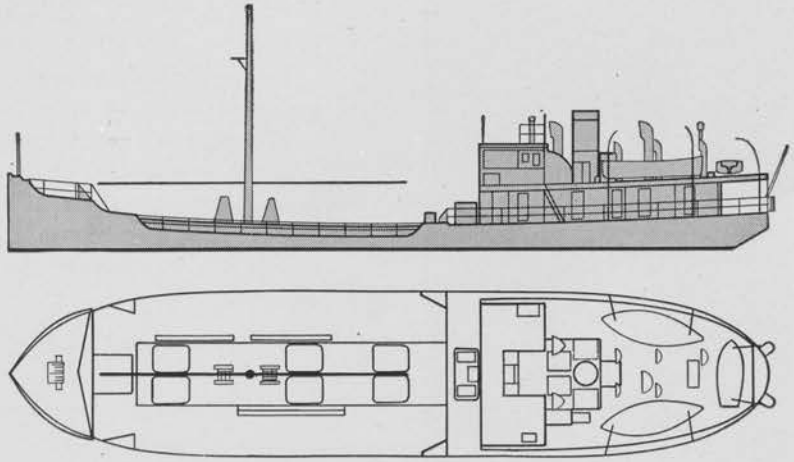
Two versions of small tankers with "economy" hull designs have been observed in quantity, both closely similar to the Type "E (Modified)" cargo carrier in dimensions and general design features. Although no statistics are available, tonnage is believed to approximate closely that of the "E (Modified)" vessels. Note that the trunked-deck version, which probably has a slightly larger barrel capacity, burns coal while the other small-stack design is probably Diesel-powered.

Full information on the other Japanese standard wartime merchant ship types is contained in ONI 208–J, Supplement 3. Types "E" and "F" are shown on page 74 of this manual.

▲ Notice the trunked well deck, a common structural feature in these small tankers.

▼ An unidentified trunk-decked coastal tanker sighted off Saipan, 23 February 1944.

TEMBUSU



NAVAL STATUS—Scuttled at SOERABAJA, 2 March 1942; probably raised.

AREA—Java.

YEAR BUILT—1939.

FLAG—Dutch.

TONNAGE—344 (gross); 391 (dead weight); 160 (net).

LENGTH—136′ (water line).

BEAM—29′.

DRAFT—8.5′.

SPEED—8.5 knots (cruising).

MACHINERY—Diesel.

R. P. M.—330.

FUEL—Oil.

SCREWS—2.

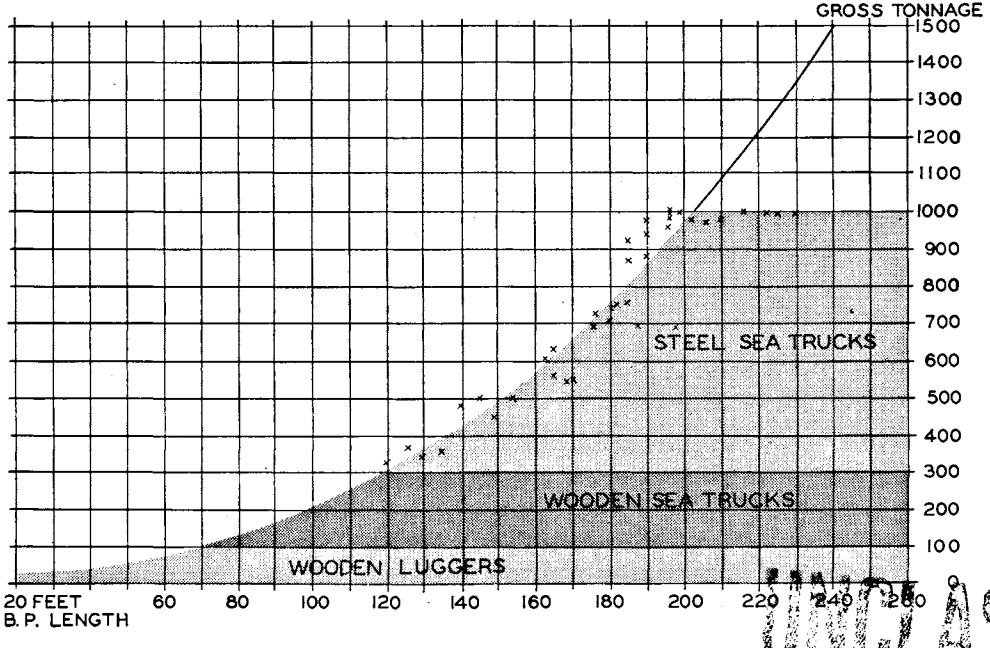
BHP—170; NHP—140.

COASTAL CARGO SHIPS

This category includes all powered cargo carriers between 300 and 1,000 gross tonnage, except barges. For recognition purposes, this group is divided into "Fox Tare" (engines-amidships freighters) and "Sugar" types (engines-aft freighters). On the chart below these are all lumped together under "steel sea trucks." This chart is included as an aid to preparing accurate tonnage estimates from visual sightings.

Chart of approximate tonnage/length relationship

x denotes actual examples. NOTE.—To estimate over-all length, add 11′ to the bp. figure shown.



Over-all Specifications

GROSS TONNAGE—300 to 1,000.

D. W. TONNAGE—320 to 1,615.

LENGTH—120′ to 230′ (over all).

BEAM—23′ to 33′ (over all).

DRAFT—8.2′ (average empty); 15.3′ (average loaded).

SPEED—14.5 to 16 knots, Max. (9 average), Diesel.
7 to 10 knots (9 average), steam.

MASTS—1 to 3 (some are goal-post type).

DERRICKS—Three 3-ton (average).

HATCHES—2 to 3 (2 average).

PROPULSION—Diesel or steam engines.

FUEL—Oil or coal.

CARGO CAPACITY—433 to 1,834 tons (764 average), Diesel.
430 to 1,680 tons (1,087 average), steam.

FUEL CAPACITY—9 to 85 tons (32.3 average), Diesel.
41 to 200 tons (107 average), steam.

FUEL CONSUMPTION—.9 to 3.2 tons daily (1.8 average), Diesel.
7.2 to 17 tons daily (11.8 average), steam.

ARMAMENT—Capable of mounting one 3″/40 bow gun and several heavy and light machine guns. A single 150 mm. mortar is sometimes carried.

ENDURANCE—18 days (estimated), Diesel.
[illegible] days (estimated), steam.

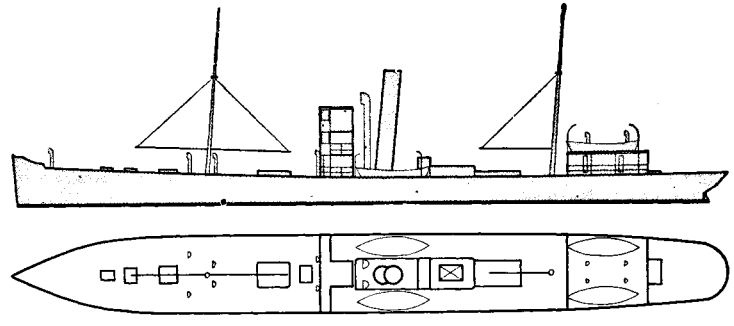
RECOGNITION OF COASTAL CARGO SHIPS

"Fox Tare" freighters under 1,000 gross tons are usually merely reduced versions of the larger types. For this reason they have always been overestimated in size, unless neighboring ships could be used as a guide.

These vessels always have a short composite superstructure amidships and an MFM or MK**FM** arrangement of verticals. They can always be identified as cargo carriers by their large hatches and heavy kingposts and booms.

"Sugar" freighters, or sea-trucks can best be described as including all *engines-aft* freighters between 120′ and 200′ in length, and with one or two hatches in the amidships cargo well. Foremast and mainmast usually abutt the forecastle and bridge, although a few have their masts centered in the well. The most important of these designs from a recognition standpoint are the standard "E" and "F" types.

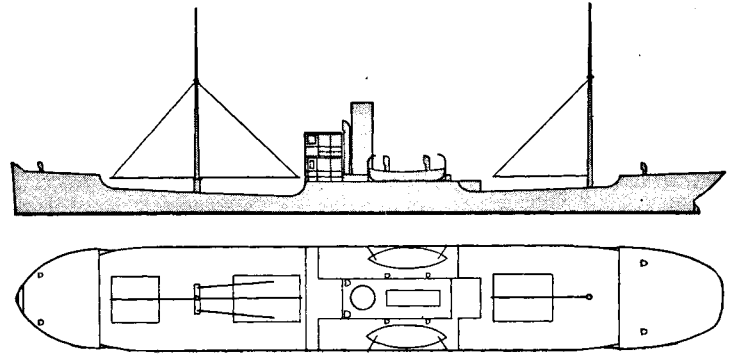
JINDAI MARU



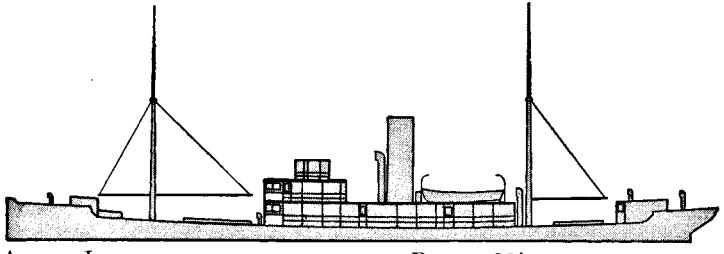
AREA—Japan.
YEAR BUILT—1875.
FLAG—Japanese.
TONNAGE—995 (gross); 1,050 (dead weight); 713(net).
LENGTH—230′ (water line); 240′ (o. a.).
BEAM—28′.
SPEED—9.5 knots (cruising).

TOYO MARU No. 3

NAVAL STATUS—XYN; indicator net tender; Government requisitioned.
AREA—Japan.
YEAR BUILT—1925.
FLAG—Japanese.
TONNAGE—981 (gross); 1,516 (dead weight); 569 (net).
LENGTH—210′ (bp); 221′ (o. a.). ▶
BEAM—32′.
DRAFT—16′ (loaded); 7.5′ (light).
SPEED—13 knots (light); 11 knots (loaded, max.).
MACHINERY—Reciprocating.
FUEL—Coal (13 tons daily).
NHP—102.

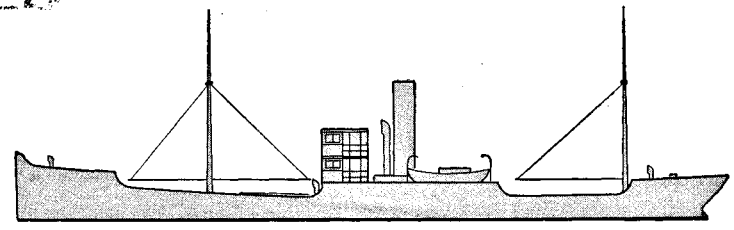


SANYO MARU (ex JACOB DIEDERICHSEN)



AREA—Japan.
YEAR BUILT—1892.
FLAG—Japanese.
TONNAGE—971 (gross); 1,250 (dead weight); 697 (net).
LENGTH—206′ (bp); 214′ (o. a.).
BEAM—30′.
DRAFT—17′ (loaded).
SPEED—10 knots (loaded).
MACHINERY—Reciprocating.
FUEL—Coal (12 tons daily).
NHP—93.

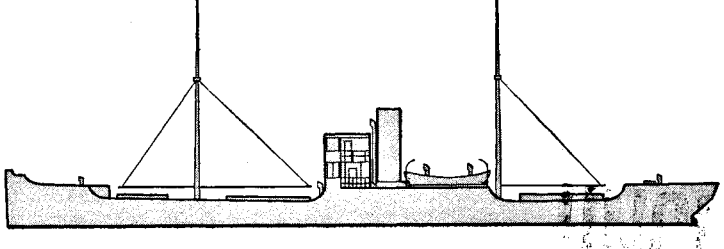
IMATU MARU



AREA—Japan.
YEAR BUILT—1918.
FLAG—Japanese.
TONNAGE—982 (gross); 1,700 (dead weight); 565 (net).
LENGTH—202′ (bp); 210′ (o. a.).
BEAM—29′.
DRAFT—16.5′ (loaded).
SPEED—7.5 knots (cruising); 9 knots (max.).
MACHINERY—Reciprocating.
FUEL—Coal (12 tons daily).
NHP—68.

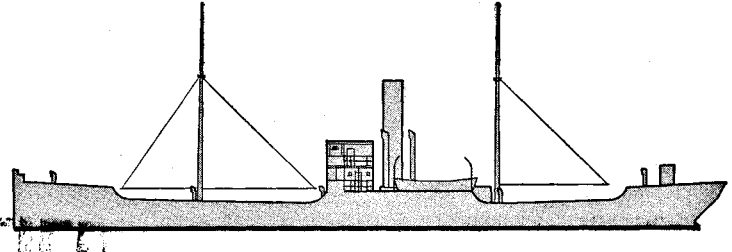
SEKINO MARU

AREA—Japan.
YEAR BUILT—1918.
FLAG—Japanese.
CAPACITY—1,720 tons (cargo); 120 tons (fuel bunker).
TONNAGE—997 (gross); 1,062 (dead weight).
LENGTH—196′ (bp); 202′ (o. a.).
BEAM—32′.
DRAFT—16′ (loaded); 5′ (light).
SPEED—8.5 knots (cruising).
MACHINERY—Reciprocating.
FUEL—Coal (15 tons daily).
NHP—75.
REMARKS—Three 1½-ton derricks.



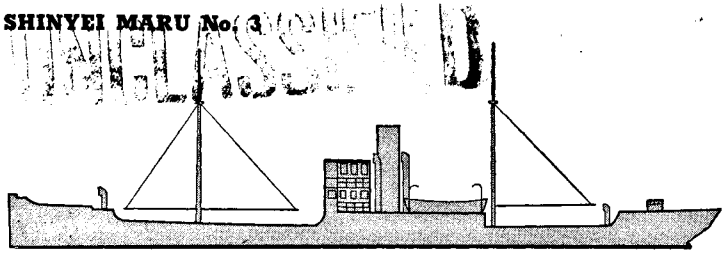
HORONAI MARU (ex TSUKUBA MARU)

AREA—Japan.
YEAR BUILT—1918.
FLAG—Japanese.
TONNAGE—995 (gross); 1,550 (dead weight); 672 (net).
LENGTH—196′ (bp); 202′ (o. a.)
BEAM—32′.
SPEED—9.5 knots (max.).
MACHINERY—Reciprocating.
FUEL—Coal (12 tons daily).
NHP—74.



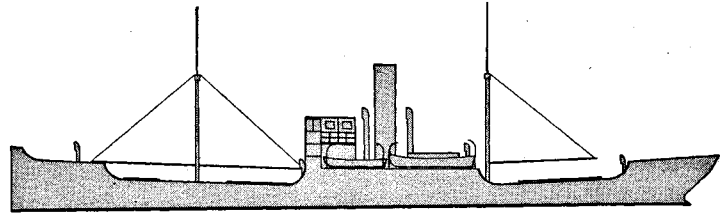
COASTAL FREIGHTERS "Fox Tare Dog"

SHINYEI MARU No. 3



AREA—Japan.
YEAR BUILT—1912.
FLAG—Japanese.
TONNAGE—954 (gross); 1,605 (dead weight); 552 (net).
LENGTH—196′ (bp); 205′ (o. a.).
BEAM—32′.
SPEED—9 knots (max.).
MACHINERY—Reciprocating.
FUEL—Coal (13 tons daily).

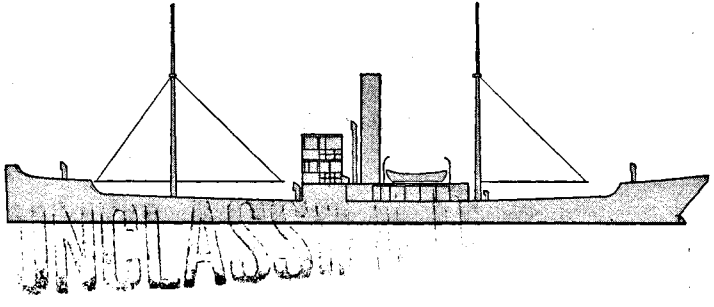
NAGARAGAWA MARU, INABAZAN (INABASAN) MARU



AREA—Japan.
YEAR BUILT—1917.
FLAG—Japanese.
TONNAGE—983 (gross); 1,511 (dead weight); 587 (net).
LENGTH—190′ (water line); 200′ (o. a.).
BEAM—32′.
DRAFT—16.5′ (loaded); 7.5′ (light).
SPEED—10 knots (max.); 8 knots (cruising).
MACHINERY—Reciprocating.
FUEL—Coal (11 tons daily).

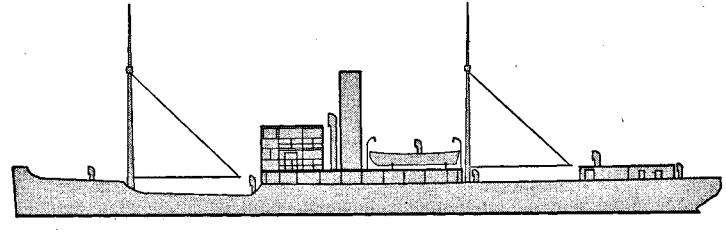
KIRISHIMA MARU No. 20

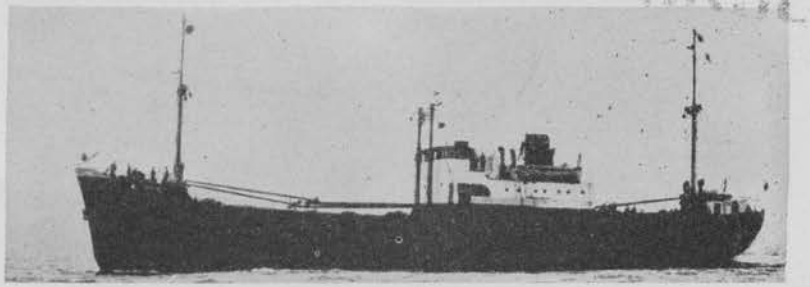
AREA—Japan.
YEAR BUILT—1918.
FLAG—Japanese.
TONNAGE—940 (gross); 1,600 (dead weight); 633 (net).
LENGTH—190′ (bp); 204′ (o. a.).
BEAM—31′.
SPEED—9.7 knots (max.); 8 knots (cruising).
MACHINERY—Reciprocating.
FUEL—Coal (12.5 tons daily).



TOKIWA MARU No. 1

NAVAL STATUS—Government requisitioned.
AREA—Japan.
YEAR BUILT—1923.
FLAG—Japanese.
TONNAGE—892 (gross); 1,120 (estimated dead weight).
LENGTH—190′ (bp); 198′ (o. a.).
BEAM—31′.
DRAFT—14′ (loaded); 6.5′ (light).
SPEED—10 knots (loaded); 12 knots (light).
MACHINERY—Reciprocating.
FUEL—Coal.
NHP—97.





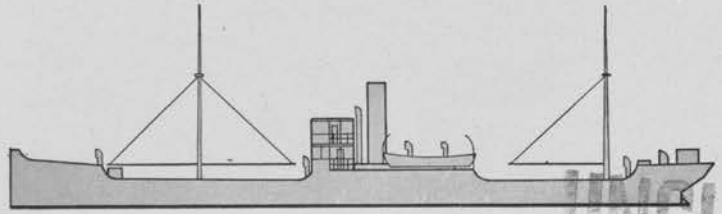
KOGA MARU

NAVAL STATUS—XYN; Government requisitioned.
AREA—Japan. YEAR BUILT—1940.
TONNAGE—909 (gross); 1,301 (dead weight).
LENGTH—187′ (water line) BEAM—31′
SPEED—11.5 knots (max.); 8 knots (cruising).
MACHINERY—Diesel. NHP—130.
FUEL—42 tons, oil (2.5 tons daily).
ARMAMENT—One 3″ gun, 3 MG's.
REMARKS—Six 5-ton derricks.

SHUKO MARU 885 gross-ton freighter.

TOYAMA MARU

NAVAL STATUS—Government requisitioned.
AREA—Japan. YEAR BUILT—1919.
TONNAGE—917 (gross); 1,375 (dead weight); 545 (net).
LENGTH—185′ (bp); 199′ (o. a.).
BEAM—30′.
DRAFT—16′ (loaded); 5.5′ (light).
SPEED—8.5 knots (loaded). 9.5 knots (light).
MACHINERY—Reciprocating.
FUEL—Coal (11 tons daily).
NHP—70.



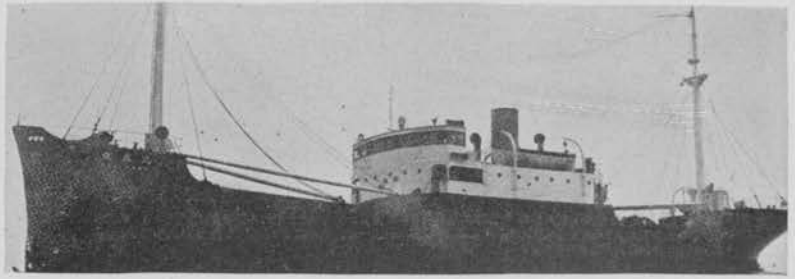
UJI MARU

NAVAL STATUS—XYN. Government requisitioned.
AREA—Japan. YEAR BUILT—1940.
TONNAGE—873 (gross); 1,300 (d. w.).
LENGTH—185′ (water line).
BEAM—31′.
SPEED—12.4 knots (max.); 10 knots (cruising).
MACHINERY—Diesel. HP—750.
FUEL—Oil.
ARMAMENT—One 3.1″ deck gun.

COASTAL FREIGHTERS "Fox Tare Dog"

KOSEI MARU

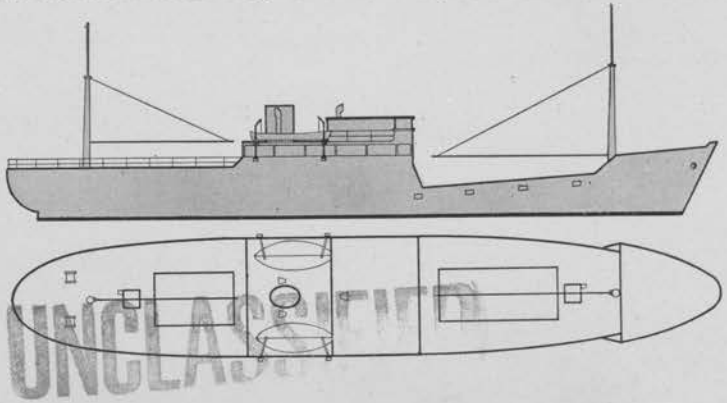
NAVAL STATUS—Government requisitioned.
AREA—Japan.
YEAR BUILT—1940.
FLAG—Japanese.
CAPACITY—79 tons (fuel bunker).
TONNAGE—865 (gross).
LENGTH—185′ (water line).
BEAM—31′.
SPEED—8.5 knots (cruising).
MACHINERY—Diesel.
FUEL—Oil (2.5 tons daily).
REMARKS—Oil cargo in drums.



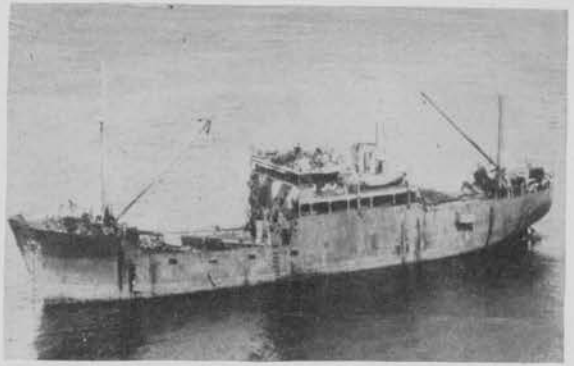
KOGI MARU

NAVAL STATUS—XYN; indicator net tender; Government requisitioned.
AREA—Japan.
YEAR BUILT—1940.
FLAG—Japanese.
TONNAGE—857 (gross).
LENGTH—185′ (water line).
BEAM—31′.
MACHINERY—Diesel.
FUEL—Oil.
NHP—103.

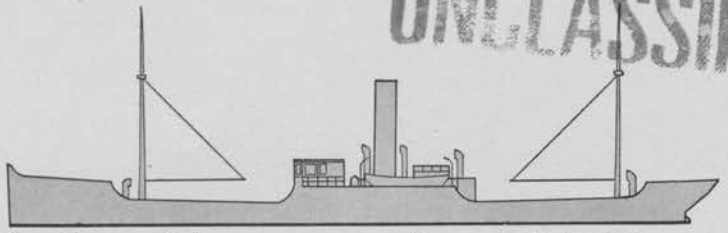
Unidentified modern freighter which may be one of a standard class.



FLAG—Japanese.
TONNAGE—704 (est. gross).
LENGTH—180′ (est. o. a.).
BEAM—30′ (est.).

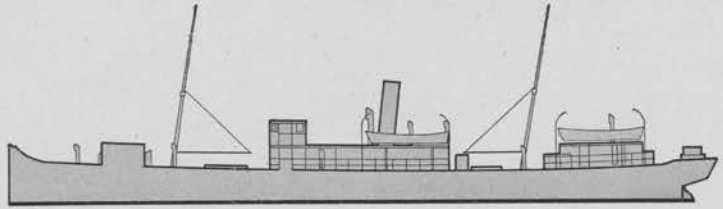


MISAKI MARU No. 2



YEAR BUILT—1917.
FLAG—Japanese.
TONNAGE—765 (gross); 1,300 (dead weight); 543 (net).
LENGTH—180′ (bp).
BEAM—29′.
DRAFT—14.5′ (loaded).
SPEED—10 knots (max.); 8 knots (cruising).
MACHINERY—Reciprocating.
FUEL—Coal (8 tons daily).
NHP—88.

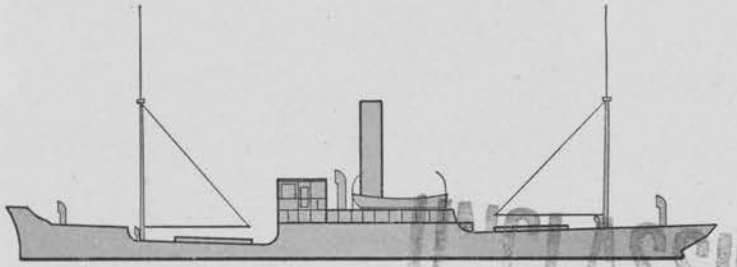
KITAMI MARU



AREA—Japan.
FLAG—Japanese.
TONNAGE—702 (gross); 386 (net).
LENGTH—180′ (bp); 189′ (o. a.).
BEAM—27′.
MACHINERY—Reciprocating.
FUEL—Coal (87 tons).

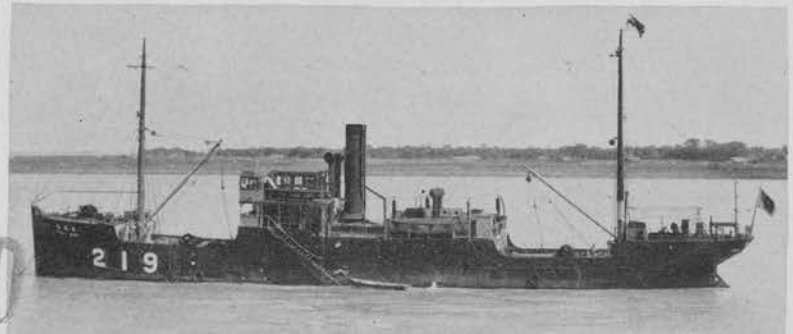
TARUMI MARU

NAVAL STATUS—Government requisitioned.
YEAR BUILT—1921.
FLAG—Japanese.
TONNAGE—727 (gross); 1,100 (dead weight); 409 (net).
LENGTH—177′ (bp); 190′ (o. a.).
BEAM—29′.
DRAFT—14.5′ (loaded); 9.9′ (light).
SPEED—9 knots (loaded); 10.5 knots (light).
MACHINERY—Reciprocating.
FUEL—Coal (8.5 tons daily).
NHP—68.



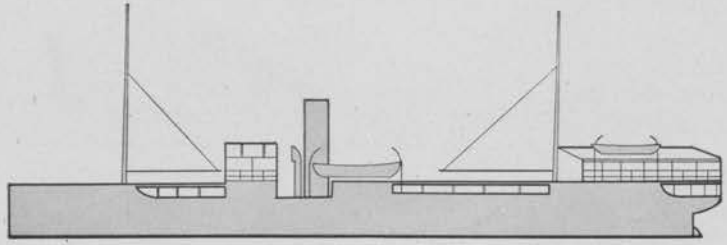
TORAI MARU (ex HIMURO MARU)

NAVAL STATUS—Government requisitioned.
YEAR BUILT—1922.
FLAG—Japanese.
CAPACITY—407 tons (cargo; part refrigerated).
TONNAGE—643 (gross); 746 (d. w.).
LENGTH—175′ (water line).
BEAM—28′.
DRAFT—14.5′ (loaded); 7.5 (light).
SPEED—10 knots (loaded).
FUEL—125 tons (13 tons daily).
NHP—70.
REMARKS—Two 3-ton derricks.



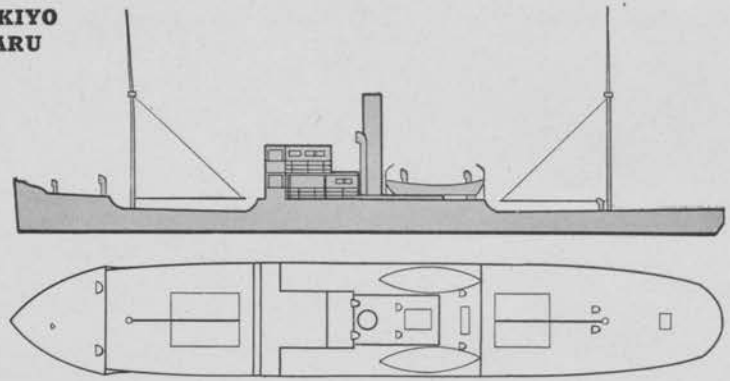
COASTAL FREIGHTERS "Fox Tare Dog"

ATJEH



STATUS—Captured.
AREA—Java.
YEAR BUILT—1938.
FLAG—Dutch.
TONNAGE—495 (gross).
LENGTH—159′ (water line).
BEAM—30′.
MACHINERY—Diesel.
FUEL—Oil.
NHP—80.

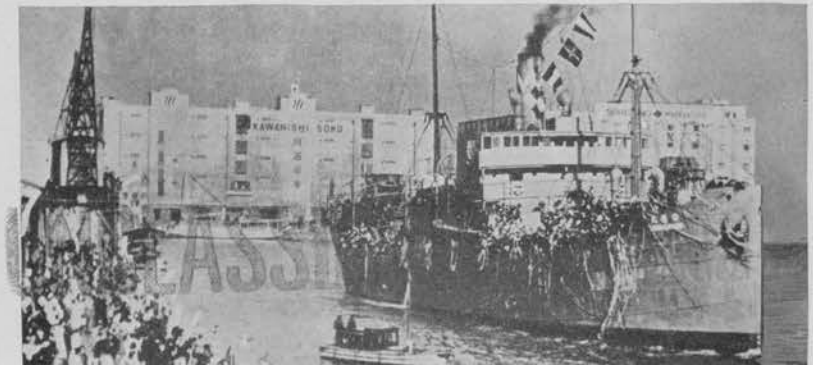
SEKIYO MARU



AREA—Japan.
YEAR BUILT—1916.
FLAG—Japanese.
TONNAGE—629 (gross); 890 (dead weight); 379 (net).
LENGTH—168′ (bp); 176′ (o. a.).
BEAM—27′.
DRAFT—17′ (loaded); 11′ (light).
SPEED—9.5 knots (cruising).
MACHINERY—Reciprocating.
FUEL—Coal, 130 tons (7 tons daily).
NHP—45.

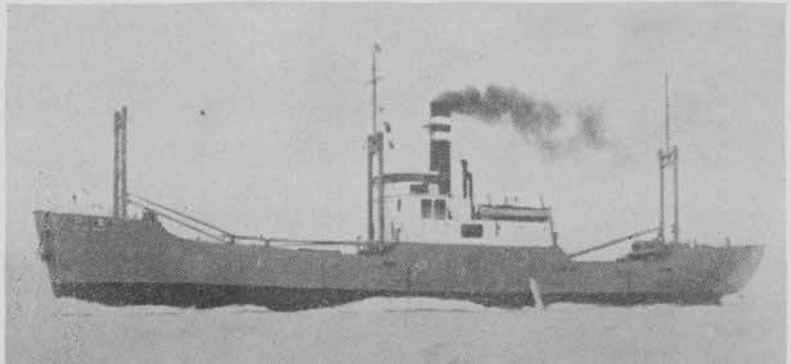
UJINA MARU

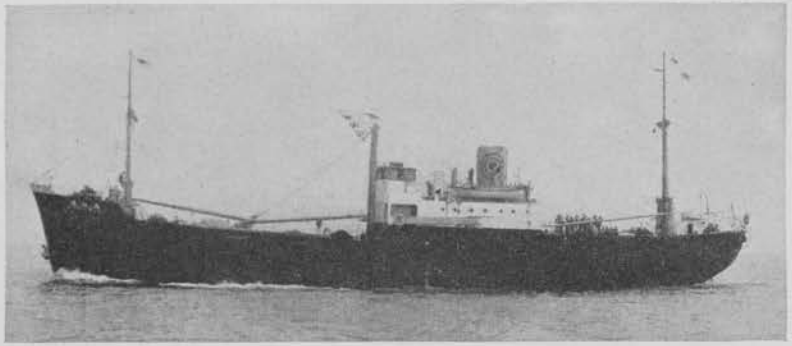
AREA—Japan.
FLAG—Japanese.
LENGTH—185′ (est. o. a.).



AZUSA MARU

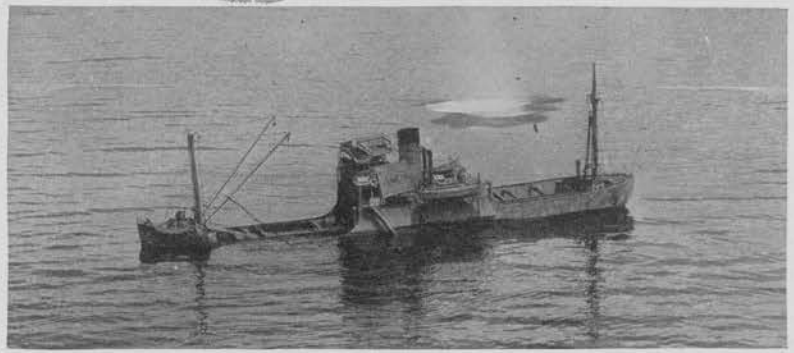
AREA—Japan.
YEAR BUILT—1941–42.
FLAG—Japanese.
TONNAGE—540 (gross).
SPEED—10 knots (max.).





HANKOW MARU

AREA—Japan.
TONNAGE—517 (gross); 1,319 (dead weight).
LENGTH—155′ (est. water line).
SPEED—11.5 knots (max.).
MACHINERY—Diesel.
FUEL—Oil.
HP—600.



Unidentified, may be a standard type

AREA—Japan.
FLAG—Japanese.
TONNAGE—580 (est. gross).
LENGTH—172′ (est. o. a.)
REMARKS—Seen in reconnaissance over Saipan, 15 June 1944.

YOSHITOMO MARU No. 16 (may be known as RYOYO MARU No. 16)

AREA—Japan.
YEAR BUILT—1935.
FLAG—Japanese.
CAPACITY—581 tons (cargo).
TONNAGE—323 (gross); 420 (dead weight).
LENGTH—120′ (water line).
BEAM—23′.
SPEED—9 knots (max.); 6 knots (cruising).
MACHINERY—Diesel.
FUEL—Oil, 9.2 tons (1 ton daily).
REMARKS—Three 1½-ton derricks.
Photo taken off MUSHU Island, 22 October 1943.

Unidentified ship; believed to be one of a large class

AREA—Japan.
YEAR BUILT—1936.
FLAG—Japanese.
CAPACITY—734 tons (cargo).
TONNAGE—498 (gross); 750 (dead weight).
LENGTH—145′ (water line).
BEAM—28′.
DRAFT—13′.
SPEED—9 knots (cruising).
MACHINERY—Diesel.
FUEL—Oil, 47 tons (1.9 tons daily).
REMARKS—Two 3-ton derricks.

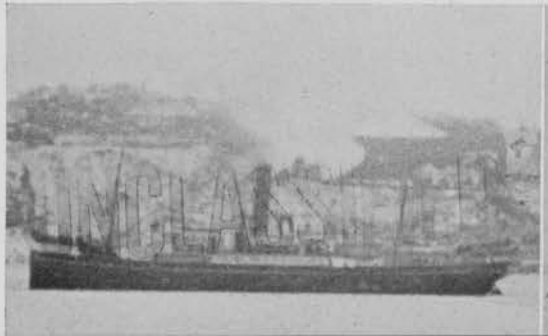
HONG KWONG

STATUS—Captured.
AREA—Sumatra.
YEAR BUILT—1927.
FLAG—British.
TONNAGE—207 (gross).
LENGTH—115′ (water line).
MACHINERY—Steam reciprocating.
FUEL—Coal.

LA ESTRELLA CALTEX (ex LA ESTRELLA TEXACO)

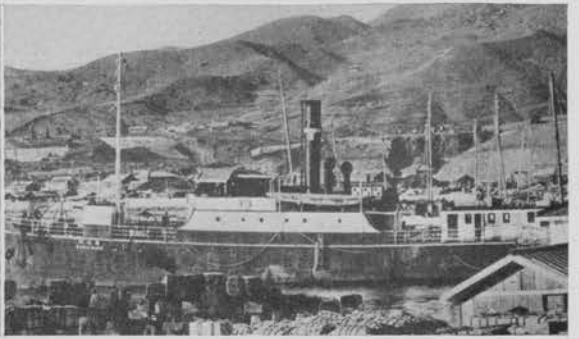
STATUS—Captured.
AREA—Philippine Islands.
YEAR BUILT—1931.
FLAG—American.
TONNAGE—495 (gross).
LENGTH—145′ (water line).
BEAM—28′.
MACHINERY—Diesel.
FUEL—Oil.

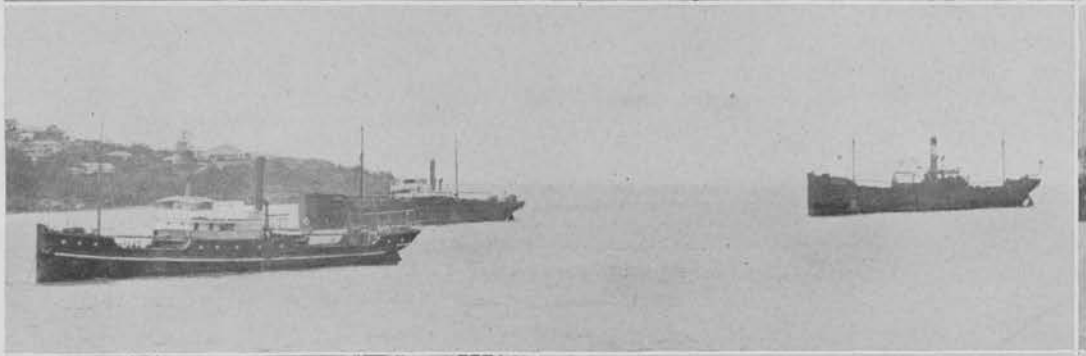
Shown below and on the opposite page are a number of unidentified Japanese and Chinese coastal freighters, all of which are under 1,000 gross tons. Almost every one of these vessels, if judged individually without scale, would be greatly overestimated in length and tonnage. For this reason, it is important to check sightings of smaller freighters with certain standards, such as the single lifeboats, or deck heights.

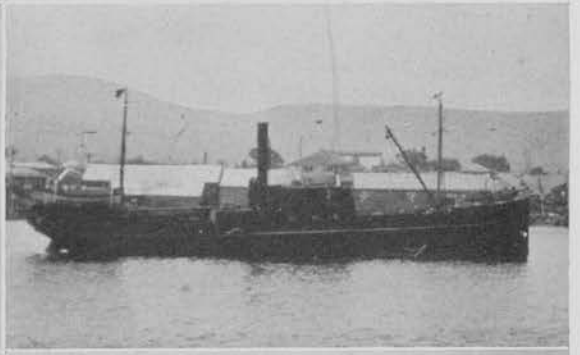


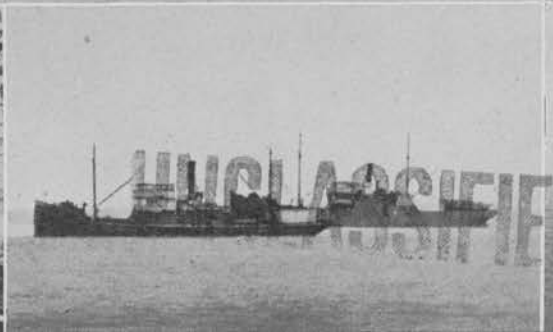
UNIDENTIFIED COASTAL FREIGHTERS

"Fox Tare Dog"







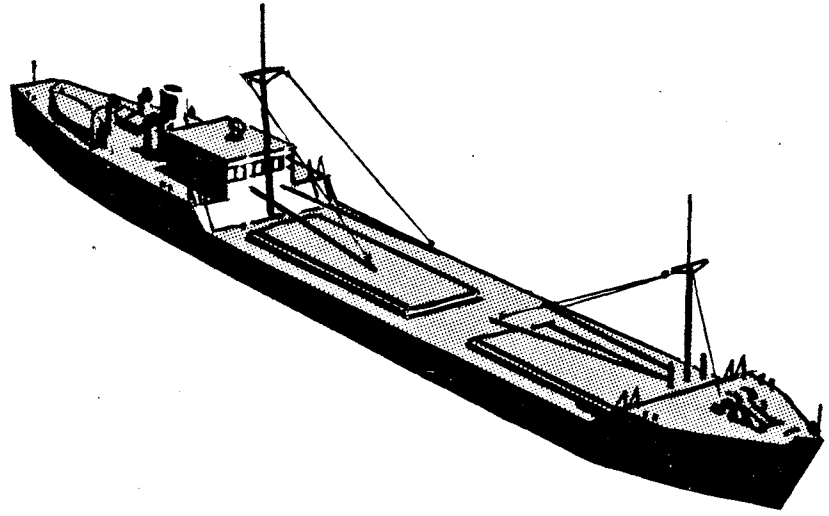


STANDARD STEEL SEA TRUCKS

Type "E" and modifications

One of the most important developments in Japanese merchant ship construction has been the design and production of the small standard cargo carrier and collier. This type has been designated Type "E (modified)" by the Japanese, who are mass-producing these ships on assembly lines at Wakamatsu in the Yawata area. It is believed that from 200 to 300 have already been constructed with a total tonnage of considerably over 200,000 gross tons—a substantial addition to Japan's dwindling merchant fleet. While the range of this type is small, these ships have been observed as far south as Takao and Manila, and should prove adequate for routes along the China Coast and across the Japan Sea.

The design of the vessel is similar in most respects to other vessels in the new standard categories. Prominent bridge and stack at the after end of the vessel and the markedly angular hull shape with pointed bow and sharply tapered, squared-off stern are characteristic. Variations in design occur within the type and two specified modifications are known to exist. Major differences occur in the location of masts, design of superstructure, and the stack size.



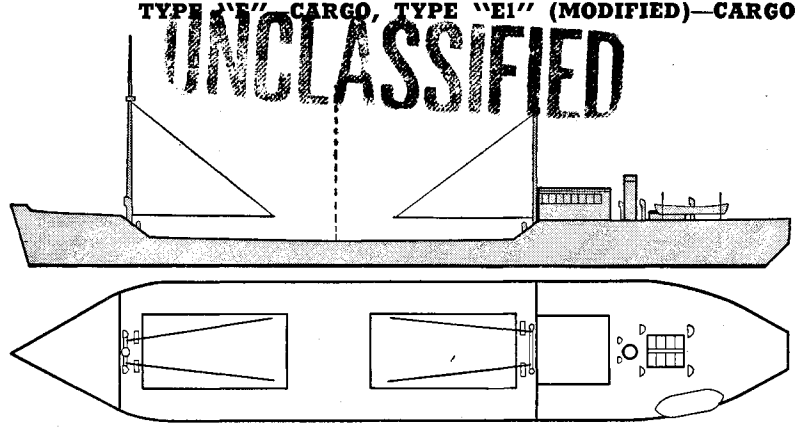
TYPE "F"

This type is thought to resemble the Type "E" but it has been impossible to date to obtain an accurate description.

TONNAGE—495 (gross).
730 (displ.).
LENGTH—Unknown.
DRAFT—12.5′.
SPEED—10 knots (cruising).
MACHINERY—Diesel.
SHP—400.
SCREWS—1.
REMARKS—Four 5-ton derricks.

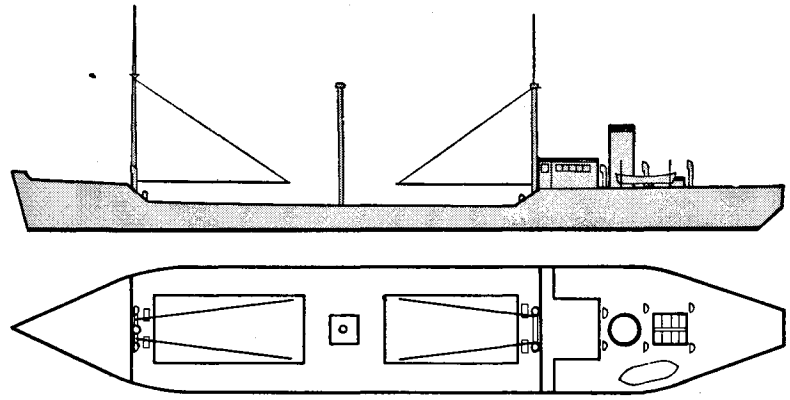
AREA—Japan.
YEAR BUILT—1943–44.
FLAG—Japanese.
TONNAGE—830 gross **(E)**, 860 **(E-1)**.
LENGTH—210′ (o. a.).
BEAM—36′.
DRAFT—14.7′.
SPEED—10 knots **(E)**, 7 knots **(E-1)** cruising.
MACHINERY—Diesel. SCREWS—1.
SHP—750 **(E)**, 400 **(E-1)**.
REMARKS—Three **(E)** or four **(E-1)** 3-ton and two 5-ton derricks.

TYPE "E", CARGO, TYPE "E1" (MODIFIED)—CARGO



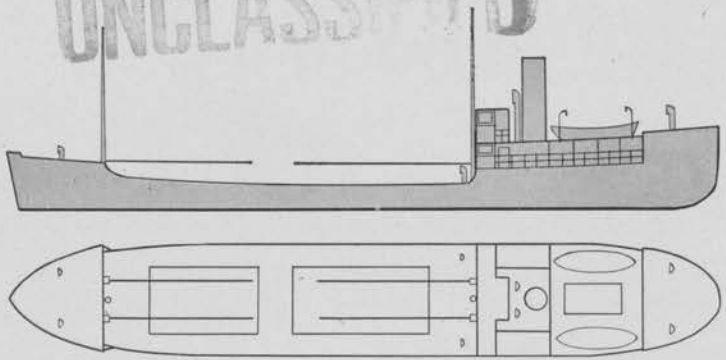
YEAR BUILT—1943–44.
FLAG—Japanese.
TONNAGE—880 (gross).
1,586 (displ., loaded).
LENGTH—
BEAM—36′.
DRAFT—14.7′.
SPEED—7 knots (cruising).
MACHINERY—Reciprocating.
FUEL—Coal.
SCREWS—1.
IHP—400.

TYPE "E2" (MODIFIED)



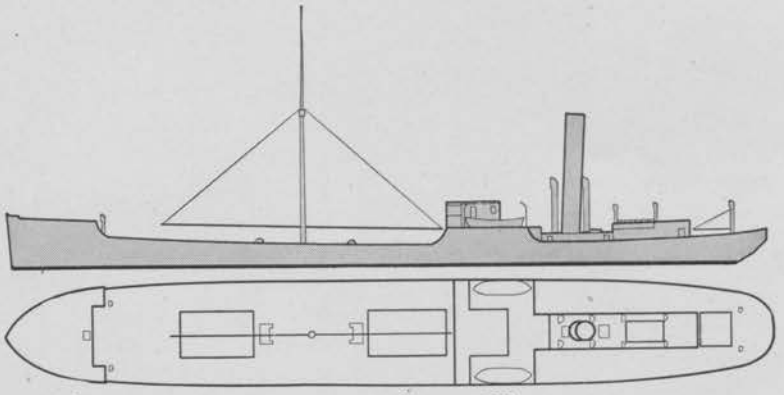
STEEL SEA TRUCKS "Sugar Charlie Sugar"

Unidentified Type



AREA—Japan.
YEAR BUILT—1909.
FLAG—Japanese.
CAPACITY—1,123 tons (cargo).
TONNAGE—741 (gross); 1,040 (dead weight).
LENGTH—181′ (water line).
BEAM—30′.
SPEED—9.5 knots (cruising).
MACHINERY—Reciprocating.
FUEL—Coal, 104 tons (9 tons dai'y).
REMARKS—Four 5-ton derricks.

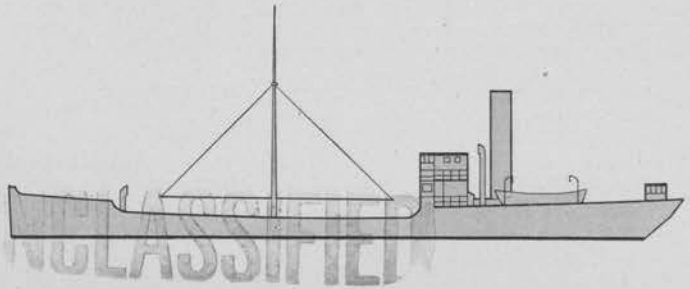
DAIKOKUZAN MARU (ex FUKUTOMI MARU No. 2)



AREA—Japan.
YEAR BUILT—1911.
FLAG—Japanese.
TONNAGE—689 (gross); 1,143 (dead weight); 420 (net).
LENGTH—188′ (bp); 198′ (o. a.).
BEAM—27′.
DRAFT—16.5′ (loaded); 7′ (light).
SPEED—9 knots (light).
MACHINERY—Reciprocating.
FUEL—Coal (8 tons daily).
NHP—53.

MATSU MARU

NAVAL STATUS—XYN.
YEAR BUILT—1928. FLAG—Japanese.
TONNAGE—690 (gross); 1,040 (d. w.).
LENGTH—176′ (bp); 188′ (o. a.).
BEAM—27′. DRAFT—14.5′ (loaded).
SPEED—10 knots (light).
MACHINERY—Reciprocating.
FUEL—Coal (11 tons daily).



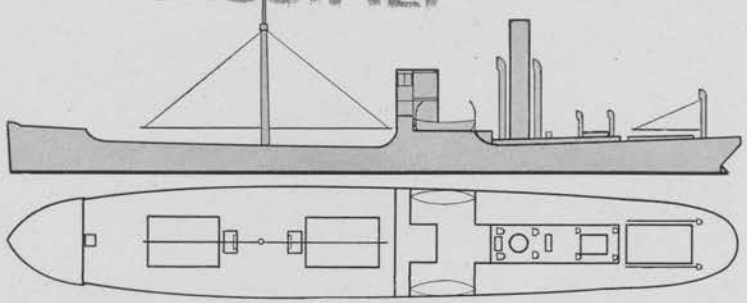
Unidentified Type

AREA—Japan.
YEAR BUILT—1936.
TONNAGE—508 (gross).
LENGTH—176′ (water line).
BEAM—29′.

PALAWAN

STATUS—Captured.
AREA—Philippine Islands.
YEAR BUILT—1927.
FLAG—American.
TONNAGE—562 (gross).
LENGTH—171′ (water line).
BEAM—29′.
MACHINERY—Diesel.
FUEL—Oil.

YOSHIURA MARU

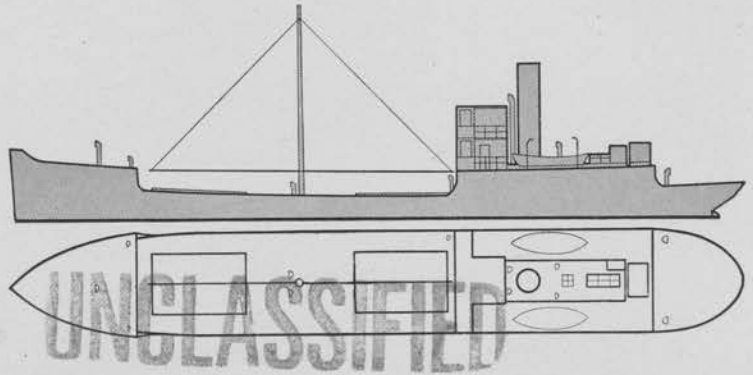


AREA—Japan.
YEAR BUILT—1910.
FLAG—Japanese.
TONNAGE—541 (gross); 860 (dead weight); 309 (net).
LENGTH—169′ (bp); 179′ (o. a.).
BEAM—27′.
SPEED—8 knots (loaded); 10.5 knots (light).
MACHINERY—Reciprocating.
FUEL—Coal (7 tons daily).
NHP—52.

SANKO MARU

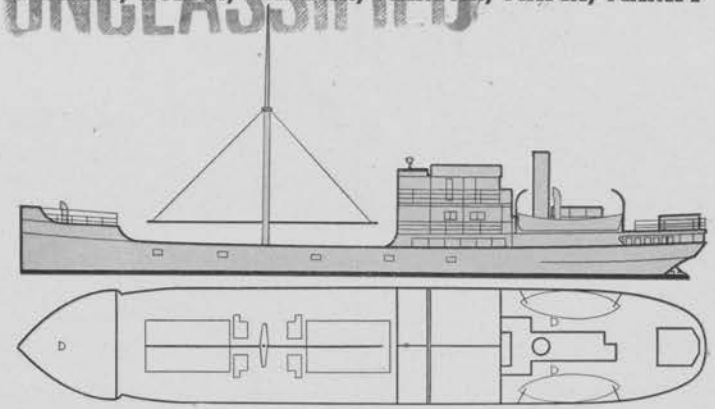
AREA—Japan.
YEAR BUILT—1919.
FLAG—Japanese.
CAPACITY—979 tons (cargo).
TONNAGE—633 (gross); 946 (dead weight); 1,383 (displ.).

LENGTH—165′ (water line).
BEAM—29′.
DRAFT—4.7′ (light); 5.8′ (ballast); 13′ (loaded).
SPEED—8.3 knots (loaded); 10 knots (light).
MACHINERY—Reciprocating.
FUEL—Coal, 100 tons (12.5 tons daily).
NHP—54; BHP, 420; IHP, 1,250.
REMARKS—Crew, 27; two 3-ton derricks forward.

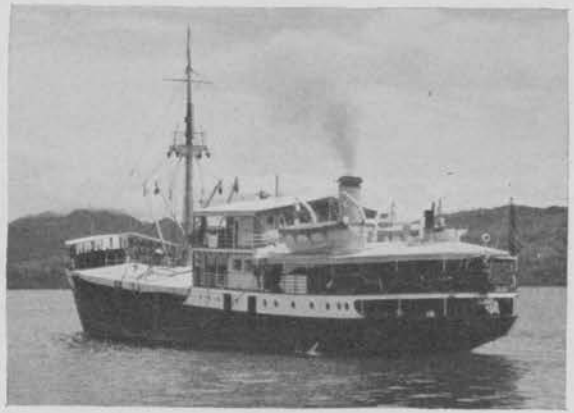


STEEL SEA TRUCKS "Sugar Charlie Sugar"

MAKIAN, ROKAN, KAMPAR, MANDAR, MAPIA, MANIPI

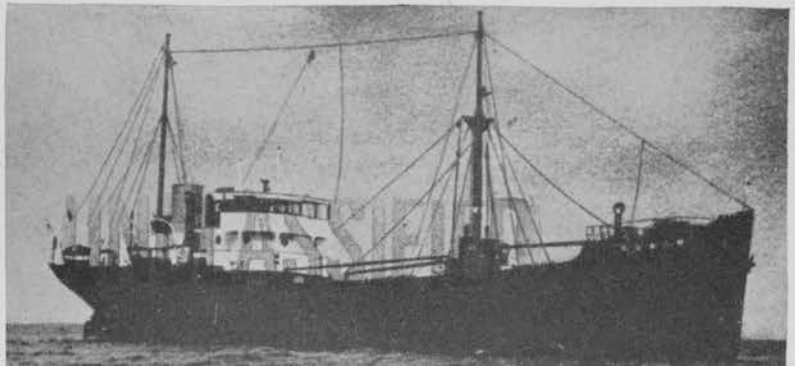


NAVAL STATUS—MAKIAN and sisterships captured. MAPIA was attacked by Japanese at Nelragiri River, N. E. I., 23 February 1942. Believed raised and again in commission.
AREA—Java.
YEAR BUILT—1928.
FLAG—Dutch.
TONNAGE—568 (gross); 400 (dead weight); 783 (displ.).
LENGTH—165′ (bp); 172′ (o. a.).
BEAM—29′.
SPEED—8 knots (loaded).
MACHINERY—Diesel.
R. P. M.—275.
FUEL—Oil.
BHP—250; NHP, 122.
REMARKS—Two 2-ton derricks.



SYUNZAN MARU No. 2 (ex SHUNZAN MARU No. 2)

NAVAL STATUS—Government requisitioned.
AREA—Japan.
YEAR BUILT—1934.
FLAG—Japanese.
TONNAGE—608 (gross); 400 (dead weight); 469 (net).
LENGTH—163′ (water line).
DRAFT—13.8′ (loaded); 4.9′ (light).
SPEED—9.5 knots (loaded); 11 knots (light).
MACHINERY—Diesel.
FUEL—Oil, 60 tons (1.8 tons daily).

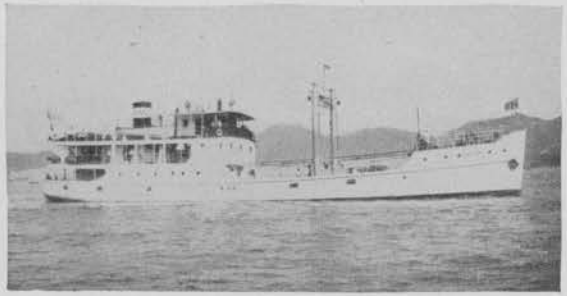


TENRYU MARU, KISO MARU

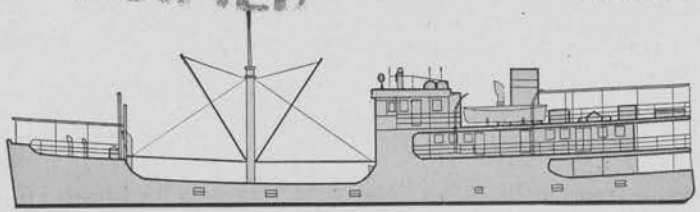
AREA—Japan.
YEAR BUILT—1939.
FLAG—Japanese.
CAPACITY—890 tons (cargo).
TONNAGE—555 (gross); 754 (dead weight).
LENGTH—158′ (water llne).
BEAM—28′.
SPEED—9 knots (cruising).
MACHINERY—Diesel.
FUEL—Oil, 23 tons (1.6 tons daily).
NHP—98.
REMARKS—Two 4-ton derricks.

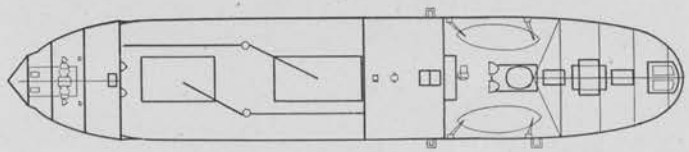
"Sugar Charlie Sugar" STEEL SEA TRUCKS

YANAWAI



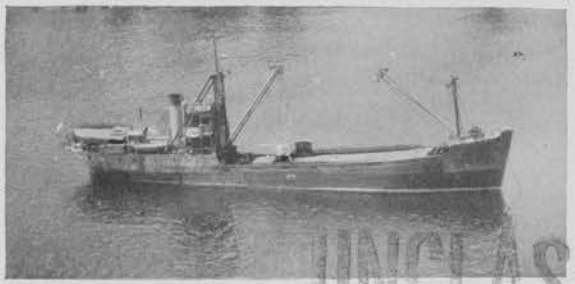
STATUS—Captured.
AREA—China.
YEAR BUILT—1937.
FLAG—British.
TONNAGE—434 (gross).
LENGTH—152′ (water line).
BEAM—28′.
MACHINERY—Diesel.
R. P. M.—330.
FUEL—Oil.
BHP—200.
REMARKS—12 first-class passengers accommodated.



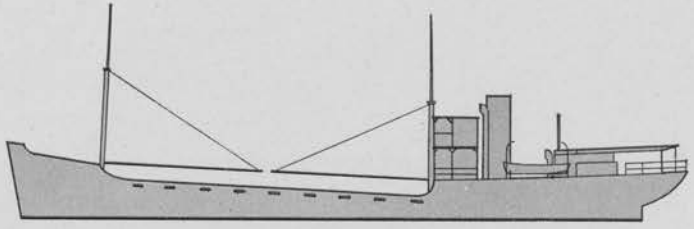


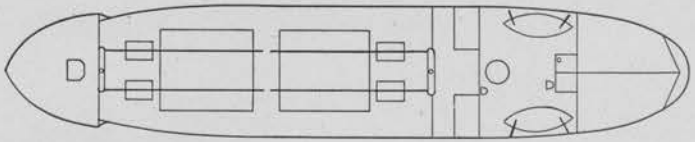
IKUTA MARU

REMARKS—Standard Type "F" cargo is believed to be similar in appearance. See preceding pages for statistics.



AREA—Japan.
YEAR BUILT—1935.
FLAG—Japanese.
CAPACITY—857 tons (cargo).
TONNAGE—485 (gross).
LENGTH—140′ (water line).
BEAM—29′.
SPEED—10 knots (cruising).
MACHINERY—Diesel.
FUEL—Oil, 41 tons (2.3 tons daily).
ARMAMENT—One 3″ gun amidships; possibly MG.



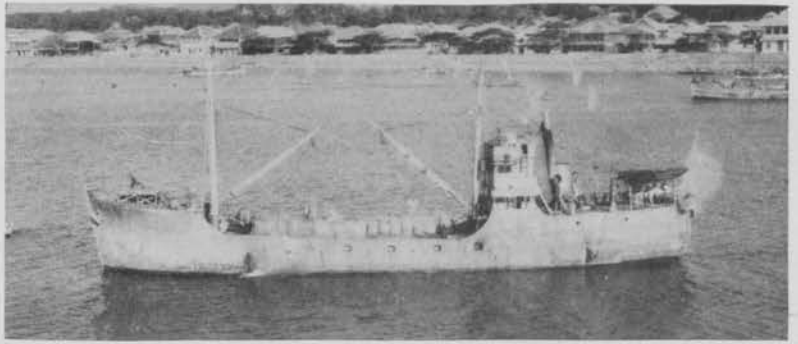


TOSEI MARU No. 1

NAVAL STATUS—Government requisitioned.
AREA—Japan.
YEAR BUILT—1940.
FLAG—Japanese.
TONNAGE—543 (gross).
LENGTH—150′ (water line).
BEAM—29′.
MACHINERY—Diesel.
FUEL—Oil.

TAKACHIHO MARU

NAVAL STATUS—XAM; Government requisitioned.
AREA—Japan.
YEAR BUILT—1937.
FLAG—Japanese.
TONNAGE—343 (gross).
LENGTH—130′ (water line).
BEAM—23′.
DRAFT—12′.
SPEED—9 knots (est. cruising).
MACHINERY—Diesel.
FUEL—Oil.
REMARKS—Some cargo space refrigerated.



MOTOYAMA MARU No. 1 (ex TOSO MARU); may be known as GENZAN MARU

AREA—Japan.
YEAR BUILT—1936.
FLAG—Japanese.
CAPACITY—507 tons (cargo).
TONNAGE—371 (gross).
LENGTH—130′ (water line).
BEAM—24′.
SPEED—10 knots (max.); 8 knots (cruising).
MACHINERY—Diesel.
FUEL—Oil, 14 tons (1.5 tons daily).
REMARKS—Two 1.5-ton derricks.

SENYO MARU No. 5

AREA—Japan.
YEAR BUILT—1937.
FLAG—Japanese.
TONNAGE—370 (gross).
LENGTH—125′ (water line).
BEAM—26′.

KIKU MARU

AREA—Japan.
YEAR BUILT—1934.
FLAG—Japanese.
TONNAGE—297 (gross); 370 (dead weight).
LENGTH—120′ (water line).
BEAM—23′.
SPEED—9 knots (cruising).
MACHINERY—Diesel.
FUEL—Oil.
ARMAMENT—One 3″ gun forward; two MG's on bridge.

FUJI MARU

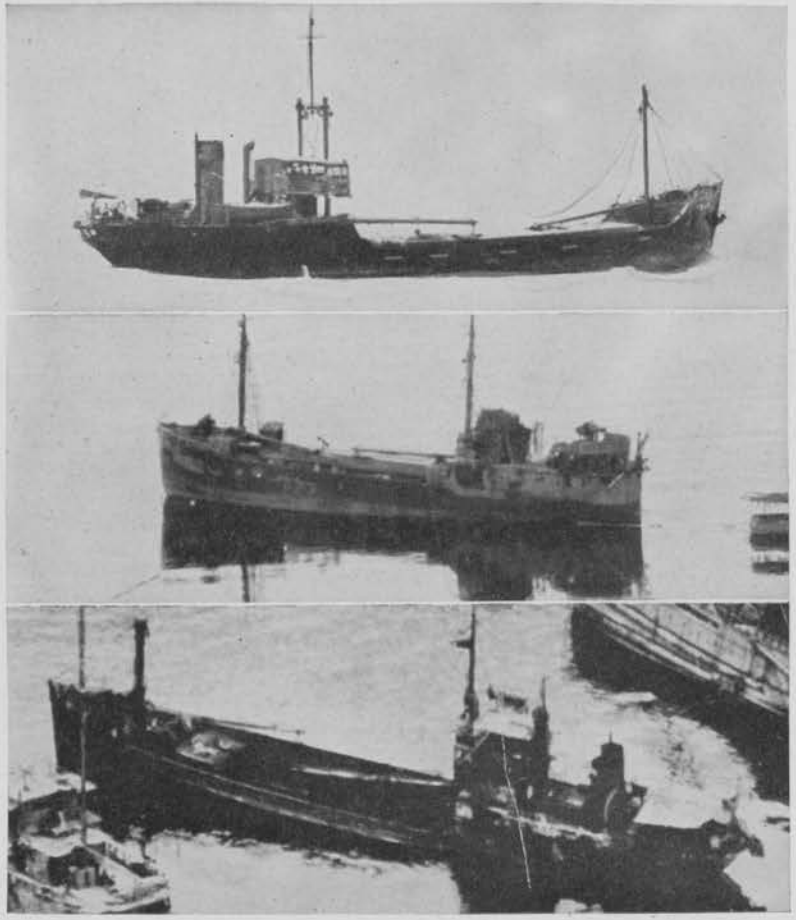
AREA—Japan.
YEAR BUILT—1921.
FLAG—Japanese.
TONNAGE—273 (gross). 406 (dead weight).
LENGTH—118′ (est. o. a.).
SPEED—8.5 knots (cruising).
REMARKS—This cargo carrier is an example of a pre-war steel sea truck under 300 gross tons. Most of the cargo carriers of this size constructed since the war are of wood, although the design is practically duplicated.

Two unidentified steel sea trucks photographed over Rabaul (left) and Lele Harbor, Kusaie, during 1943. The amidships goal posts on the ship to the left is an unusual feature in sea trucks.

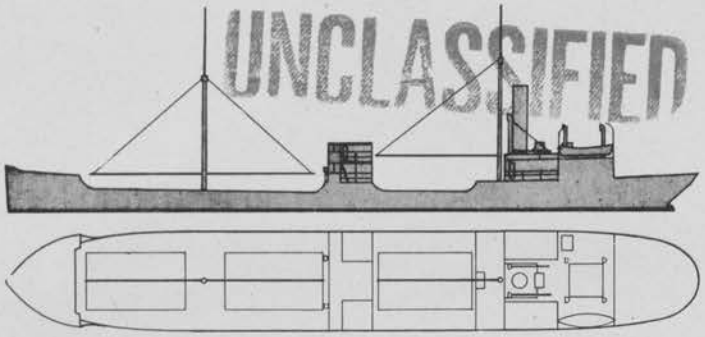
STEEL SEA TRUCKS "Sugar Charlie Sugar"

The ships illustrated on this page are unidentified pre-war steel sea trucks. Each represents a variation in design which is generally applicable to a number of vessels of this cargo-carrying type.

A complete list of all known steel sea trucks is included in the "freighter" list, which is run in the statistical section of this manual.

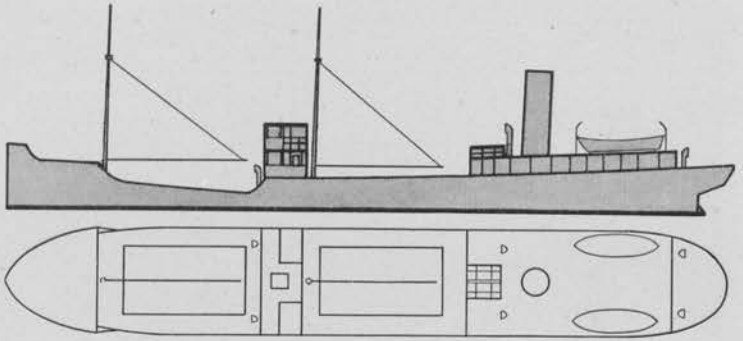


This type is distinguished by its bridge located amidships



TSUKUSHI MARU No. 3

AREA—Japan.
YEAR BUILT—1927.
FLAG—Japanese.
TONNAGE—999 (gross); 1,543 (est. dead weight).
LENGTH—225′ (bp); 236′ (o. a.).
BEAM—33′.
SPEED—9 (est. cruising).
FUEL—Coal.

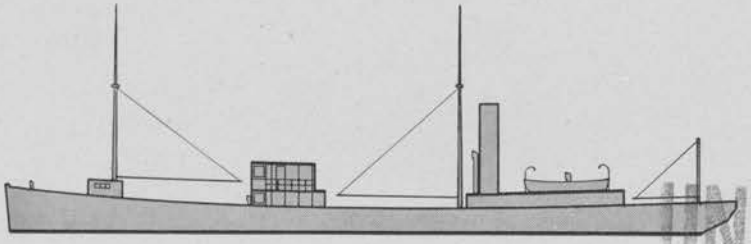


BEROUW

STATUS—Captured.
AREA—Java. FLAG—Dutch.
YEAR BUILT—1919.
TONNAGE—756 (gross); 927 (est. dead weight); 321 (net).
LENGTH—184′ (bp); 194′ (o. a.).
BEAM—29′.
MACHINERY—Reciprocating.
FUEL—Coal.
NHP—63.

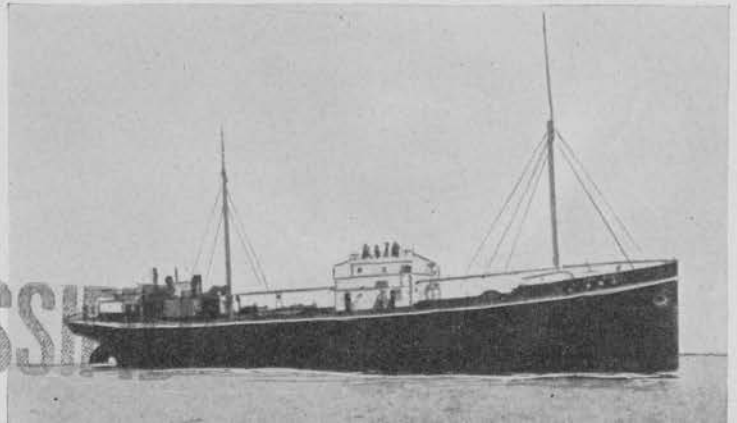
SHIOYA MARU

YEAR BUILT—1917. FLAG—Japanese.
CAPACITY—1,210 tons (cargo).
TONNAGE—749 (gross).
LENGTH—182′ (bp); 192′ (o. a.).
BEAM—27′.
DRAFT—(13.9′ loaded).
SPEED—7 knots (loaded); 9 knots (light).
MACHINERY—Reciprocating.
FUEL—Coal, 116 tons (10 tons daily).
REMARKS—Three 5-ton derricks.



JIRO MARU

AREA—Japan.
TONNAGE—840 (gross).
LENGTH—180′ (water line).
BEAM—32′.



STEEL SEA TRUCKS "Sugar Baker Sugar"

BANSHU MARU No. 3 (ex BANSHU MARU No. 88)

NAVAL STATUS—XAF; Government requisitioned.
YEAR BUILT—1934.
TONNAGE—725 (gross).
DIMENSIONS—170′ (water line) x 30′ x 14′.
SPEED—9 knots (cruising).
MACHINERY—Diesel; NHP, 395.
REMARKS—Carrying capacity of fresh provisions, 200 tons, partially refrigerated.

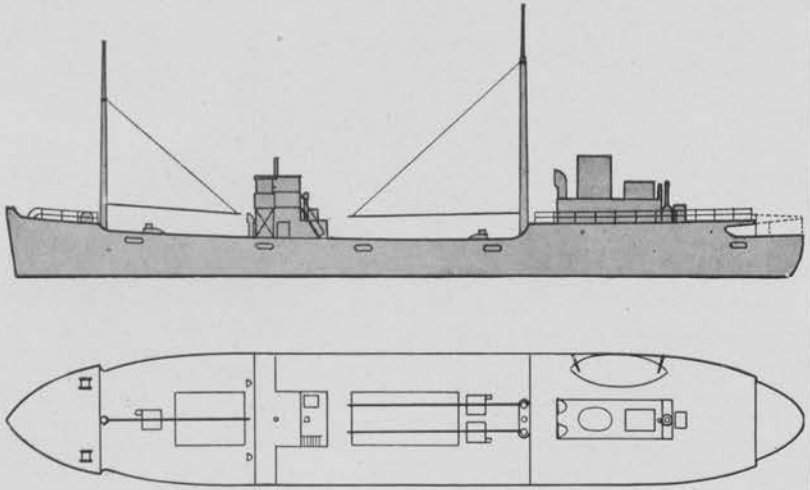
BANSHU MARU No. 15 (ex BANSHU MARU No. 89-39)

AREA—Japan.
YEAR BUILT—1934.
FLAG—Japanese.
TONNAGE—363 (gross).
LENGTH—135′ (water line).
BEAM—25′.
SPEED—9 knots (est. cruising).
MACHINERY—Diesel.
FUEL—Oil.
NHP—282.
REMARKS—Partially refrigerated.

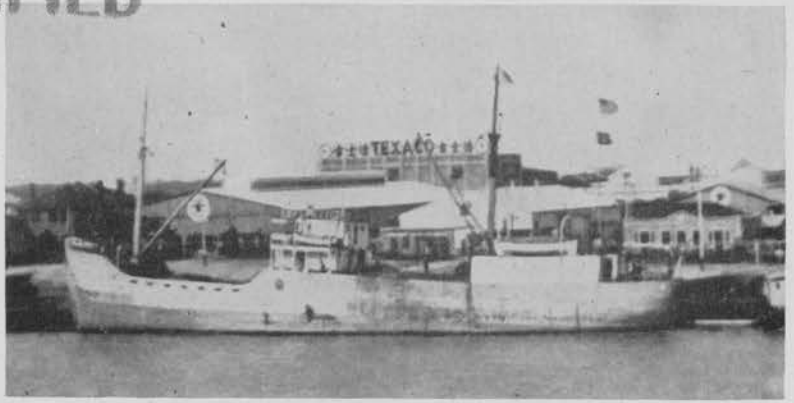
Unidentified Sea Truck

AREA—Japan.
YEAR BUILT—1942.
TONNAGE—529 (gross); 750 (dead weight).
LENGTH—158′ (est. water line).
SPEED—10 knots (cruising).
MACHINERY—Diesel.
FUEL—Oil, 34 tons (1.8 tons daily).
Identical to SHINYU MARU.

FUJI MARU, KISO MARU, ASO MARU



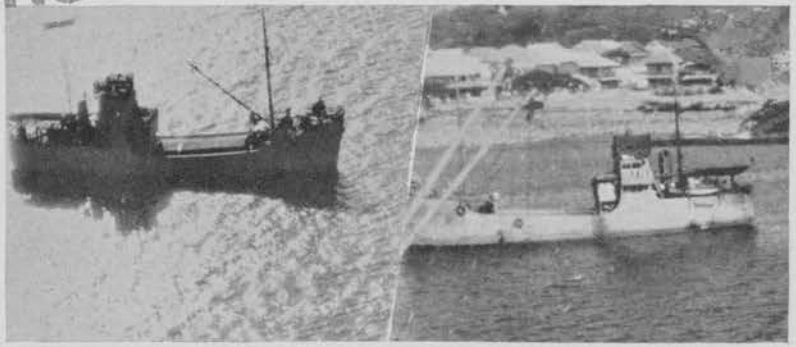
NAVAL STATUS—All are listed as XPG's and AK's; Government requisitioned.
AREA—Japan.
YEAR BUILT—1933.
FLAG—Japanese.
CAPACITY—1,050 tons (cargo); 45 tons (refrig.).
TONNAGE—704 (gross); 750 (dead weight).
LENGTH—170′ (water line); 180′ (o. a.).
BEAM—30′.
DRAFT—13′ (loaded).
SPEED—11 knots (cruising); 13.5 knots (max.).
MACHINERY—Diesel.
FUEL—Oil.
REMARKS—Partially refrigerated.



▼ Two unidentified Japanese sea trucks. ▲

STEEL SEA TRUCKS "Sugar Dog"

This type is distinguished by its single continuous hatch and funnel placed aft.



MOMO MARU

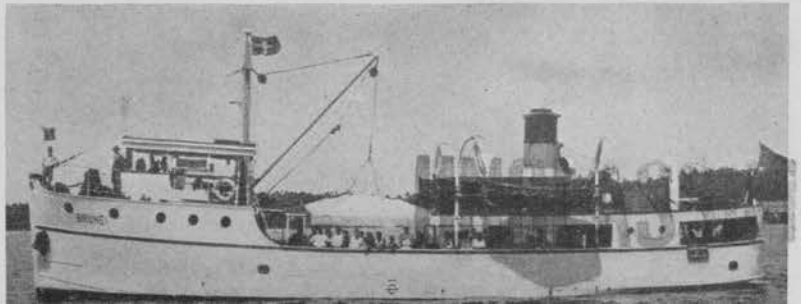
AREA—Japan.
YEAR BUILT—1936.
FLAG—Japanese.
CAPACITY—793 tons (cargo).
TONNAGE—443 (gross); 700 (dead weight).
LENGTH—149′ (water line).
BEAM—27′.
SPEED—9.5 knots (cruising).
MACHINERY—Diesel.
FUEL—Oil, 23 tons (1.5 tons daily).
REMARKS—One 2-ton, one 4-ton derrick.

TOUN MARU No. 1, No. 2, No. 3, No. 4, No. 5

AREA—Japan.
YEAR BUILT—1937.
FLAG—Japanese.
TONNAGE—483 (gross).
LENGTH—154′ (water line).
BEAM—30′.
SPEED—10.6 knots (cruising).
REMARKS—Open-bottom type earth transport owned by Japanese Government Department of Home Affairs.

BRUNEI

STATUS—Scuttled, Singapore, 16 February 1942; probably salvaged.
AREA—Malay.
YEAR BUILT—1930.
FLAG—British.
TONNAGE—101 (gross).
LENGTH—81′ (water line).
BEAM—21′.
MACHINERY—Diesel.
FUEL—Oil.
REMARKS—Although this ship is wood-hulled, it is representative of the smaller cargo types which may be encountered in the sea truck category.

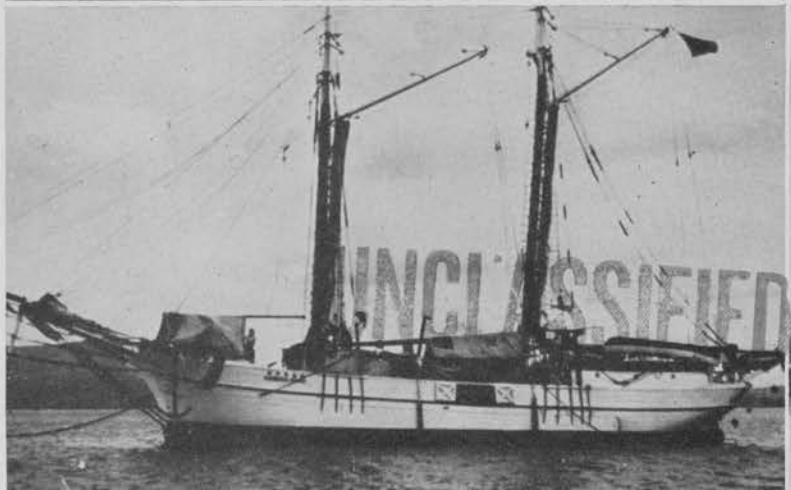


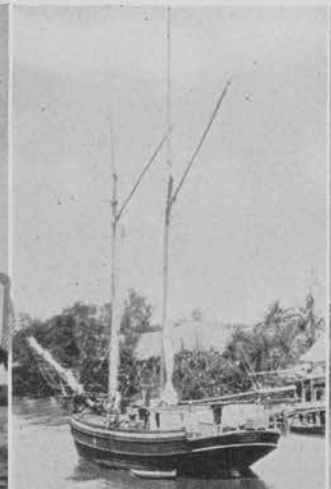
▼ An unidentified steel sea truck.

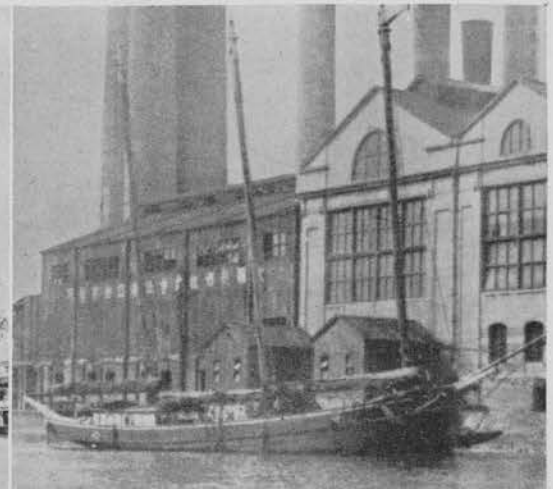
CARGO-CARRYING SAILING VESSELS

Pre-war registry lists 2,255 sailing ships, ranging from 100 to 500 gross tons, in the Japanese Empire. Although fishing and cargo functions are often intertwined, a sizeable fraction of this sailing tonnage, over 300,000 gross, is undoubtedly engaged in coastal and inter-island cargo trade. Military importance today is reflected by the Japanese Government's offer of reward and profit to sailing merchantmen carrying China Sea contraband. Efforts are also being made to motorize sailing types not already fitted with auxiliary engines.

Sailing types included as freighters overlap with miscellaneous native craft, and the native craft chart should be referred to for complete coverage of this group. Easily distinguished from other vessels by its sails and graceful appearance, the sailing freighter is further designated by its rig. The ships on this page are all schooners.







MISCELLANEOUS FREIGHTERS

In small scale reconnaissance photographs recognition of the miscellaneous freighter is limited to its identification as a sailing type.

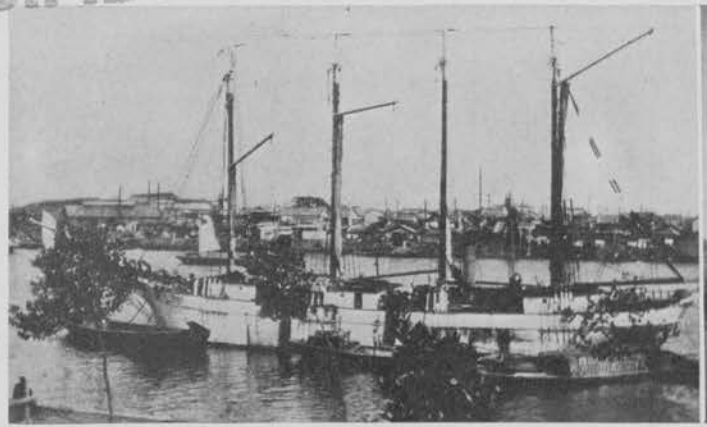
However, from closer view it is observed that each sailing vessel is a distinct ship, marked by an individual rig. Some of the more common types of sailing rig are listed:

SCHOONER—Two or more masts, with fore and aft sails, and with headsails carried on a bowsprit and jib boom.

KETCH—Two masts, with fore and aft sails, jigger mast rigged forward of the rudder.

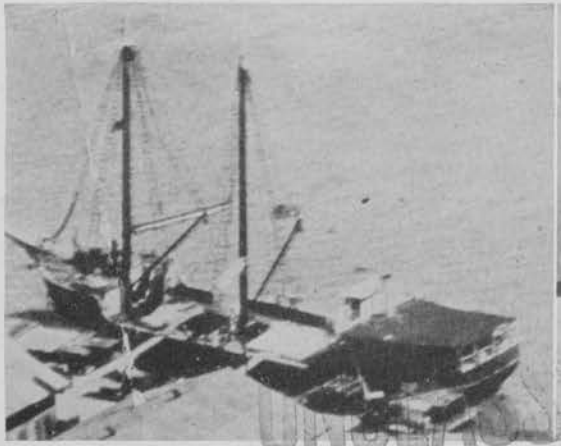
SLOOP—Single mast, with mainsail and with headsails carried on a bowsprit and jib boom.

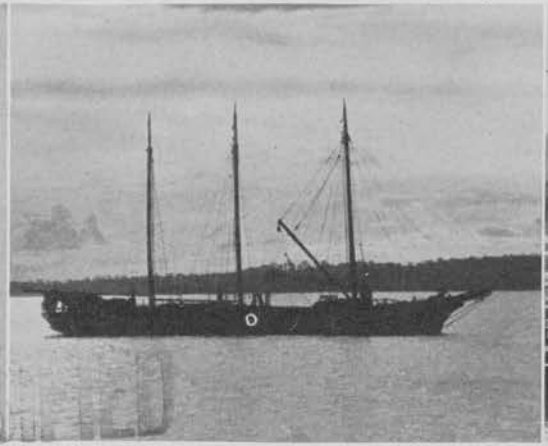
BRIG—Two masts, square rig.



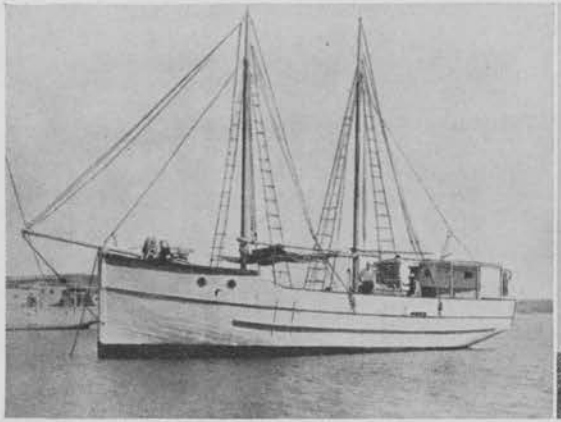
▲ Two, three, and four-masted schooners ▼

Ketch ▲

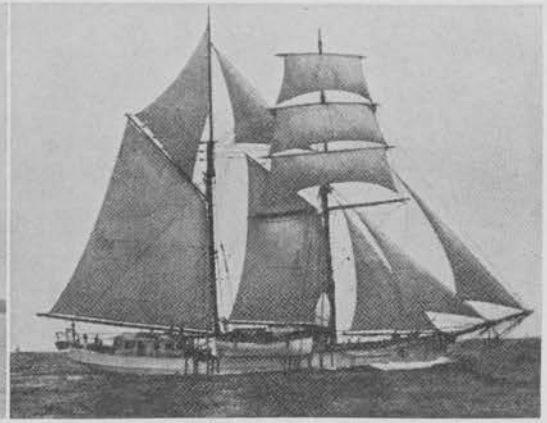




MISCELLANEOUS FREIGHTERS



▲ Schooners ▼



Brigantine ▲ Topsail Schooner ▼

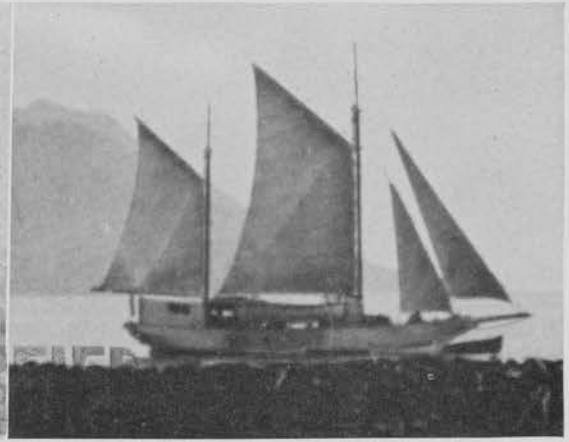
BRIGANTINE—Two masts, square rigged on the fore, and fore-and-aft rigged on the mainsail.

BARK—Three masts, square-rigged on the fore and main, and fore-and-aft rigged on the mizzen.

BARKENTINE—Three masts, square rigged on the fore, and fore-and-aft rigged on the main and mizzen.

YAWL—A rig similar to a sloop rig but with a small fore-and-aft sail set on a short jigger mast.

Ketch ▼



WOODEN SEA TRUCKS "Sugar Dog"

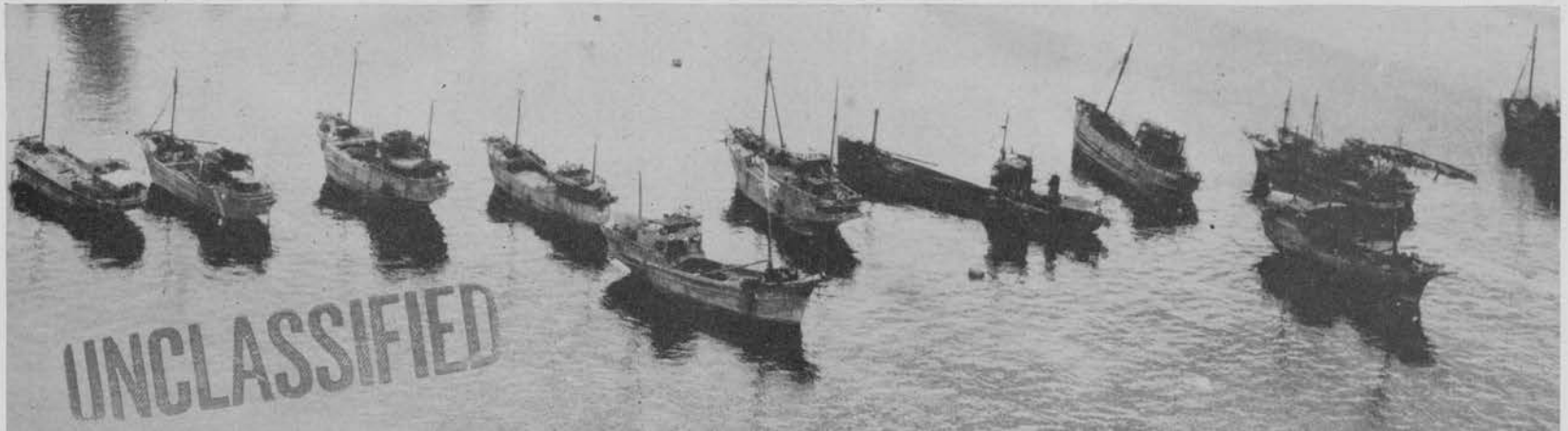
To offset Japan's tremendous loss of steel shipping, a program of wooden ship construction was inaugurated in 1943. This program, launched with wide publicity and invested by the Navy with an "A" priority, was scheduled to reach a near peak in 1944 of over one million gross tons per year. Available estimates place the tonnage actually delivered at far lower than the planned figure.

An acute shortage of steel necessitated the choice of wood as the basic material for this program—in the wooden ship metal is used only for nails, certain installations, and the propelling machinery. Japan's yard facilities for steel ship construction have been strained to their utmost, and a yard for wooden ships can be set up at almost any harbor supplied with timber. Wood is also more easily handled by untrained labor than steel. Cranes, slips, and shops can be built of material on hand and construction begun immediately. Indo-China, Java, Thailand are well supplied with teakwood; pine and fir are plentiful in Manchukuo, the Philippines, and South China; so the source of supply permits a wide geographic range for construction.

To speed production, the program was standardized into 5 designs of sea trucks, 500, 300, 250, 150, and 100 gross tons, respectively, with principal effort devoted to the three smaller types. An output of one boat per slip per month was expected by the Japanese. Lag in delivery of Diesel engines seems to have been the principal bottleneck in production thus far. Japan's dwindling stock of seasoned timber also seems to have been a delaying factor; ships built of green wood have been extremely difficult to repair. The enemy is known to have considered a proposal that one half of the existing dockyards be assigned to repair work alone.

Wooden vessels are intended to carry all the coastal cargoes of the Japanese Empire, with overseas traffic reserved exclusively for steel shipping. Coastal lading consists for the most part of food staples and raw materials for industry. Since the campaigns of Lae and Guadalcanal, Japan has also been forced to rely increasingly on wooden ships for supply of isolated garrisons. As a carrier, the sea truck is more adapted to transport of small packaged bulk, such as food or ammunition, than to individual weighty objects such as tanks or artillery. Their expendability is a prime advantage; the loss of any single ship is of far less consequence than the sinking of a large freighter. Coasters are very difficult to identify at sea, and in jungle areas, lend themselves to deceptive inshore camouflage. Their shallow draft enables navigation over reefs or shallow waters inaccessible to larger vessels. Worst tactical disadvantage is their slow speed (8 knots maximum) and limited endurance (about 10 days). Once spotted, wooden vessels are apparently an easy target for aircraft, easily set afire by machine gun strafing or light bombing; their defensive armament is slight.

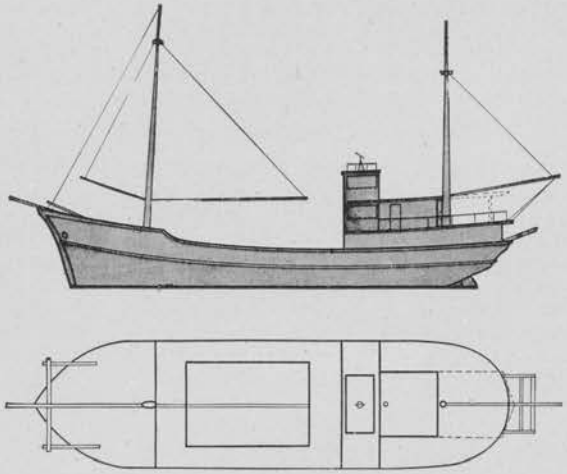
Reconnaissance photograph showing wooden sea trucks (KAIJO TORAKKU), Simpson Harbor, RABAUL, November 1943.



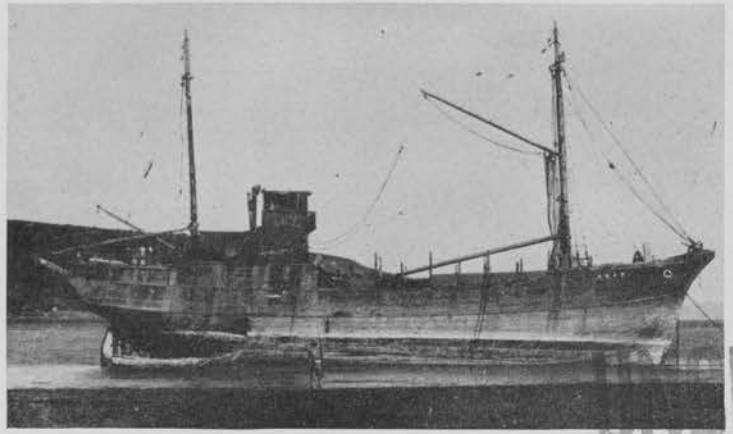
"Sugar Dog" WOODEN SEA TRUCKS

There is a slight overlap in size range between the wooden and steel sea trucks as indicated in the tonnage/length chart (See page 63). Once the general length/tonnage figures are determined for a sighting, detailed characteristics are available from the table of specifications listed below.

GROSS TONNAGE—100 to 300.
DEAD WEIGHT TONNAGE—64 to 380.
LENGTH—70′ to 130′ (water line).
BEAM—16′ to 30′ (extreme).
DRAFT (250 gross tonnage type)—10.2′ (mean).
SPEED—6.5 to 10.5 knots (8 average), Diesel. 6 to 14.5 knots (9 average), steam.
MASTS—1 to 2. HATCHES—1.
PROPULSION—Diesel or steam engine; may carry sail.



FUEL—Oil or coal.
CARGO CAPACITY—131 to 615 tons (300 average).
FUEL CAPACITY—14 tons (average), Diesel; 22 tons (average), steam.
FUEL CONSUMPTION —1.1 tons per day (average), Diesel; 8 tons (average), steam.
RADIO—Some radio-equipped.
CREW—Complement of 200-ton type: 9 men, including an "authorized captain quartermaster," 4 seamen, and 4 workmen. Extra signal personnel when conditions warrant.
ARMAMENT—Single or twin MG on bridge or forecastle. Some not armed, or small fireams such as pistols, etc., carried.
ENDURANCE—12 days (estimated), Diesel; 3 days (estimated), steam.
CRUISING RANGE—About 2,200 nautical miles.
FREIGHT EQUIPMENT (250 gross tonnage type)—The hatch is serviced by a hoist geared directly to a 25 hp. motor. Lifting capacity of boom on forecastle deck is about 3 metric tons.

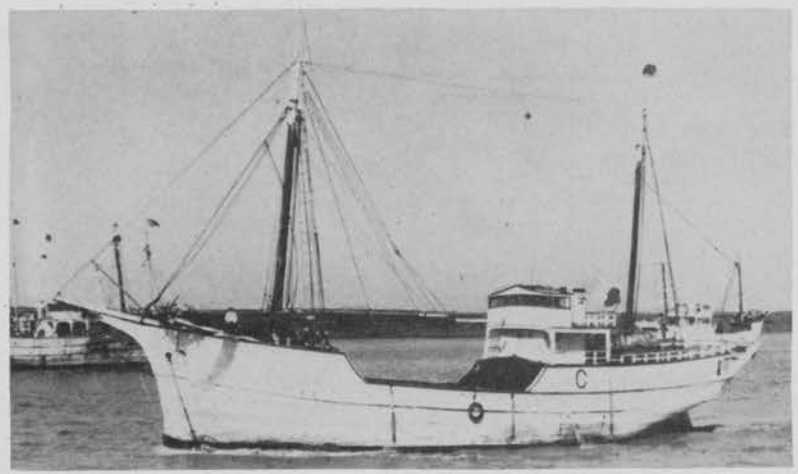


◀ FUMITSUKI MARU, typical wooden sea truck, 115′ over all, Diesel powered.

WOODEN SEA TRUCKS "Sugar Dog"

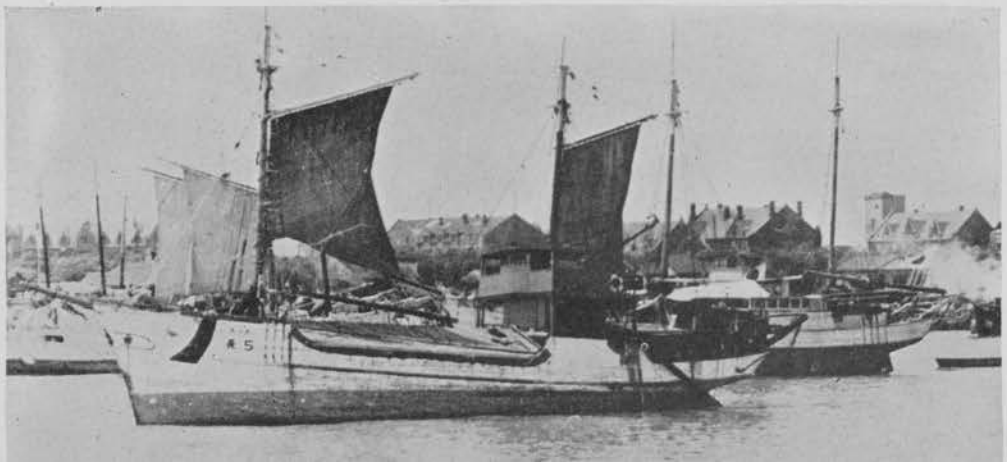
RECOGNITION FEATURES

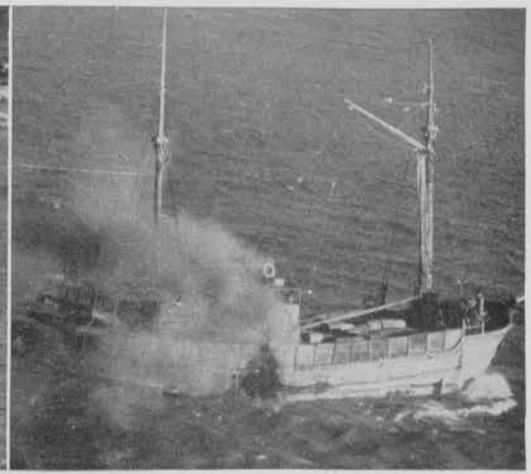
From the air the most salient characteristics of the wooden sea truck are: rounded stern, full-width bridge, length/beam ratio of about 4:1, single large cargo hatch, prominent bowsprit, rectangular boat rack projecting over the stern, and a wooden yoke which projects outboard across the bow. From the surface, recognition characteristics are the high bridge, clipper bow, counter stern, high freeboard, and sailing rig which connotes some of the "country" awkwardness of a junk. Notice that when sails are rigged, the sea truck will resemble an ordinary two-masted ketch.



These are two pre-war prototypes first seen during the China campaign.

Photo below shows launching of a typical sea truck.





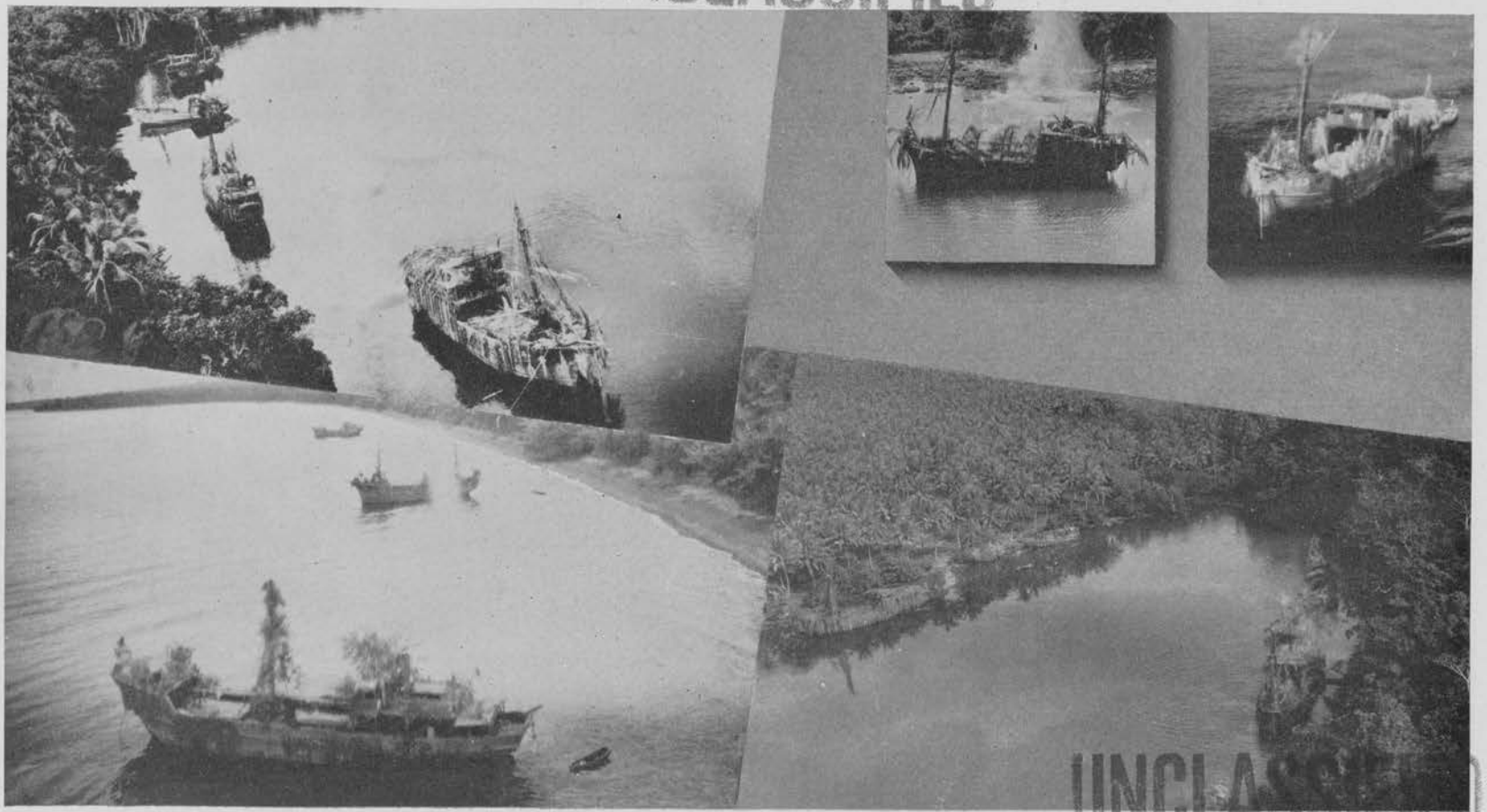
Although a great many minor variations exist, the most prominent of these occur in the bridge, which may be 1, 1½, or 2 decks, the mizzenmast which may or may not be erected, and the length which ranges between 70′ and 130′ over all.

WOODEN SEA TRUCKS "Sugar Dog"

Sea truck "factory" at Panay, P. I. Other craft are native types, luggers, and barges.

"Sugar Dog" WOODEN SEA TRUCKS

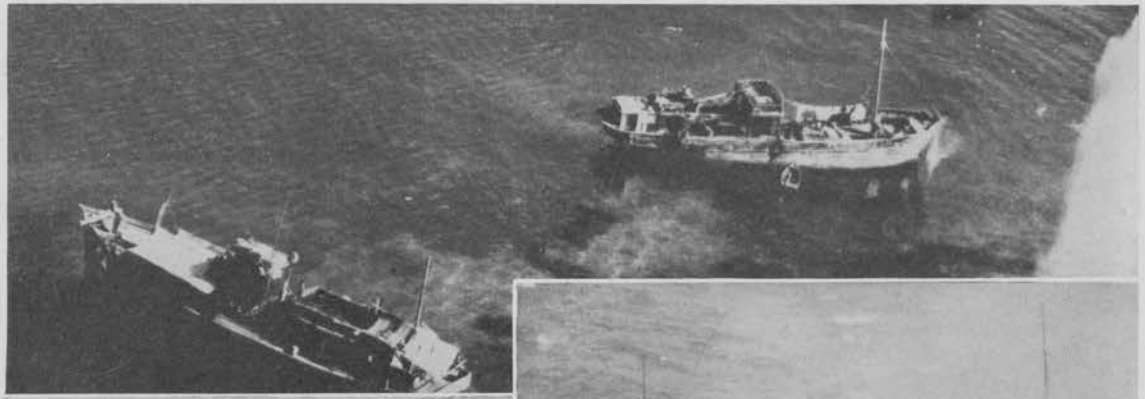
▼ Sea truck makes extensive use of natural camouflage in tropical areas.

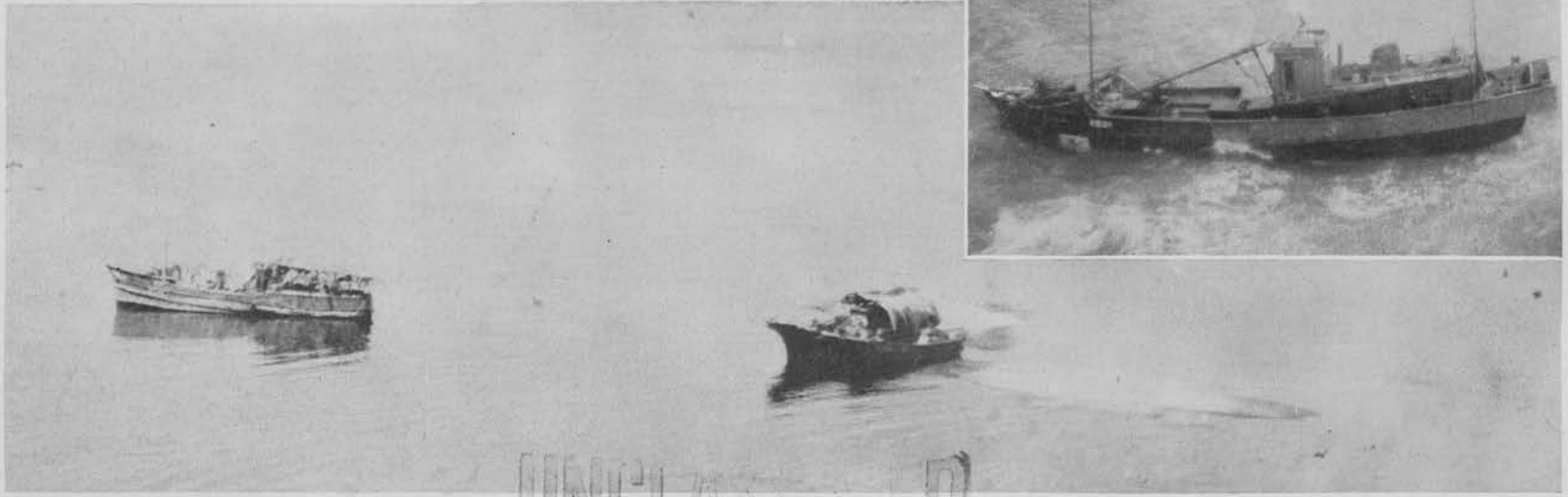


WOODEN LUGGERS

These vessels have been produced in quantity during the war as the smallest type in the wooden ship building program, and now constitute a large factor in the local supply operations throughout the entire Far-Eastern combat area. For example, in Burma it was estimated that over 60 percent of the total operating tonnage in early 1944 was comprised of wooden vessels, 75 percent of which were 80′ to 100′ luggers. The following characteristics present a brief over-all description of the lugger type:

LENGTH—Below 100′ (o. a.).
TONNAGE—Below 125 gross tons.
SPEED—8 knots (max.).
PROPULSION—Diesel, semi-Diesel or gasoline, with auxiliary sails.
ARMAMENT—7.7 mm. MG on bridge.





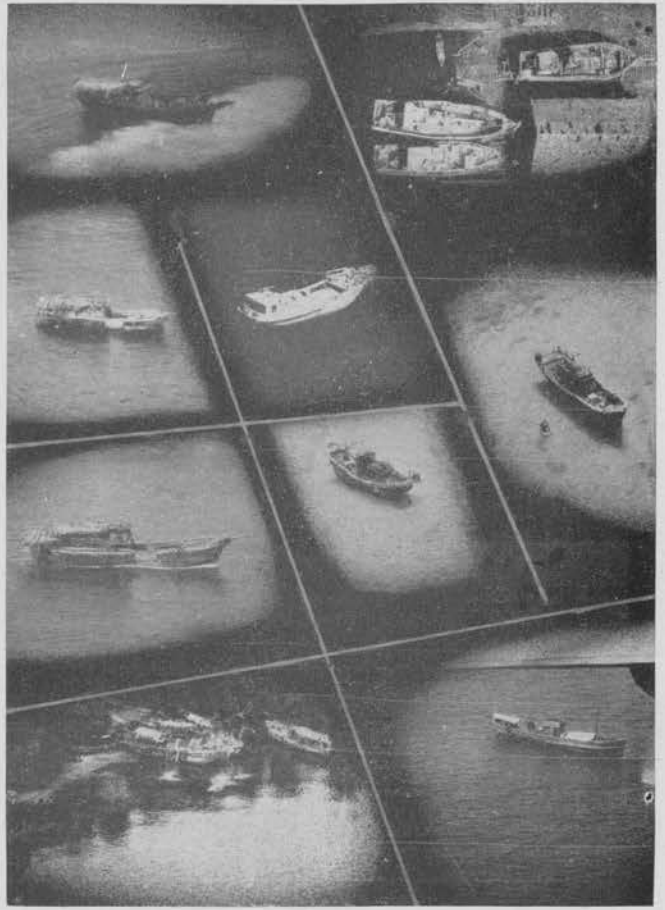
"Lugger" is an over-all nickname that has been applied to all wooden, cargo-carrying, powered craft under 100′ (o. a.) in length. Military landing craft and native types are not included in this category.

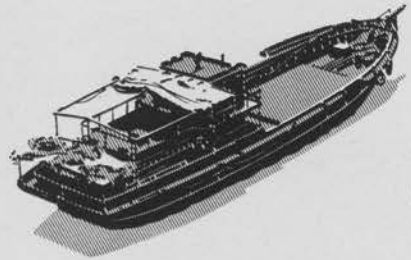
Actually this arbitrary definition does not apply as universally as this, for three reasons. The first is that luggers are actually fishing vessels used for, and recently built primarily for, cargo-carrying purposes. For this reason, duplicate types will be found under "Fishing Vessels." The second discrepancy arises from the great overlap of wooden sea trucks and luggers between the 80′ and 100′ lengths. Thirdly, one type of lugger is used for Army military purposes as the Type "G" landing craft.

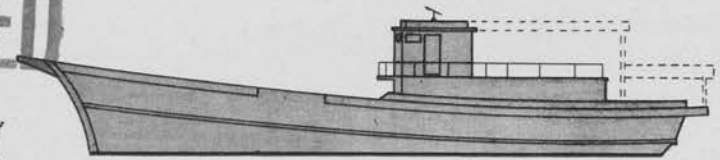
Therefore, in summary, "luggers" will be found in use for three different purposes—fishing, cargo carrying, and as landing craft.

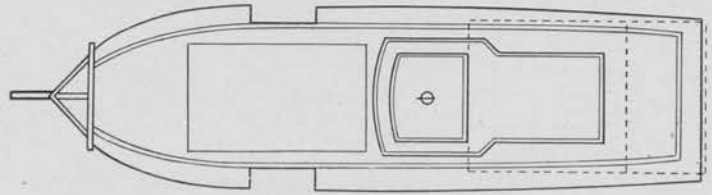
The best solution to these problems lies in accurate recognition of all these craft as basically one type, which in itself is easily identified.

A flush deck, small cabin located aft, square stern, and a single demountable mast are the main recognition features. To differentiate the lugger from other small types the circumferential catwalk and inconspicuous smokestack are additional features to check. Photos on these pages show their appearance during normal and sneak supply operations.



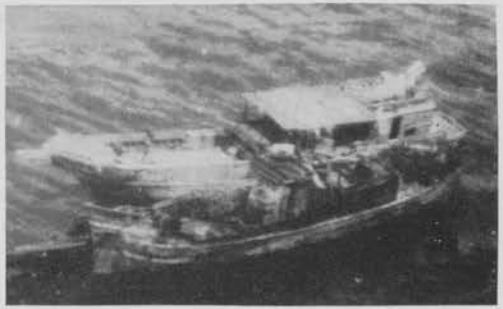


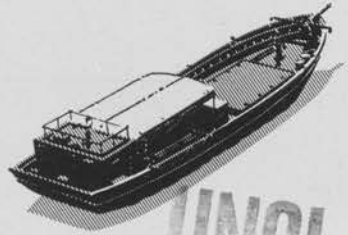


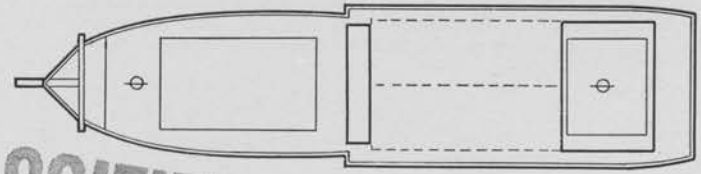


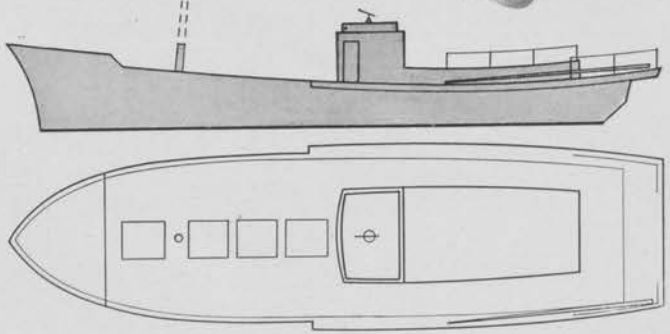
100-ton, 90′ (water line) Lugger—typical of the larger types with extended deckhouse.

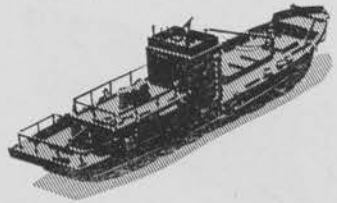
90-ton, 85′ (water line) Lugger—showing the variations existent in this type.





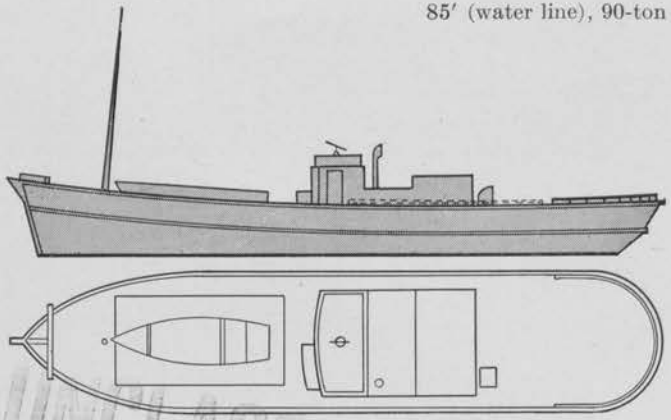


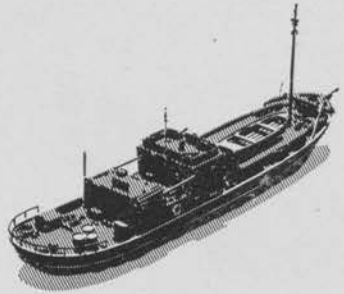


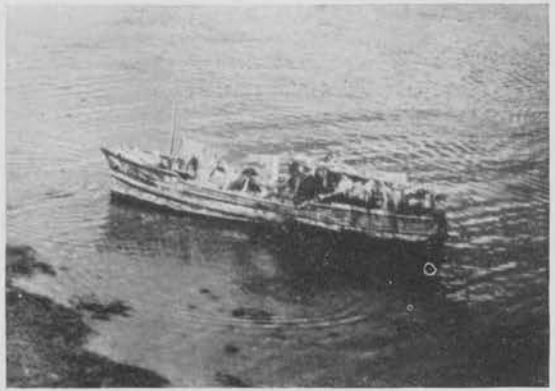


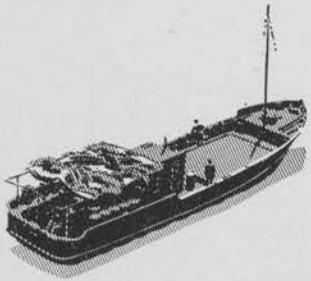
70′ (water line), 60-ton (gross) Lugger—Notice the four small cargo hatches and slight forecastle.

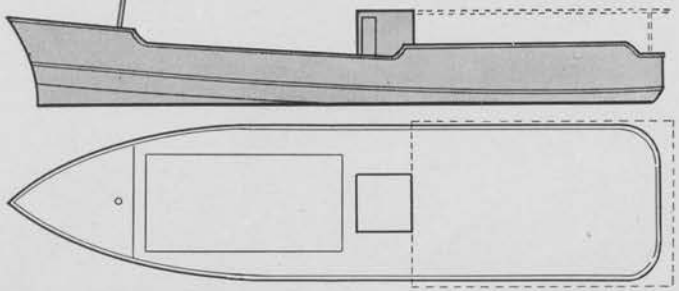
85′ (water line), 90-ton (gross) Lugger—Rounded stern is unusual in lugger.





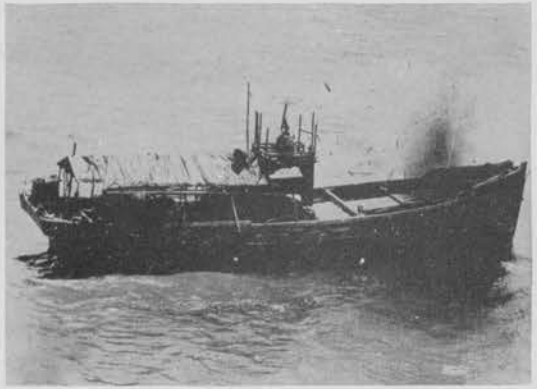


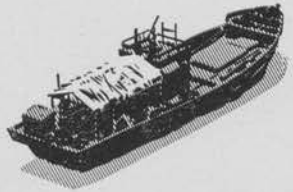


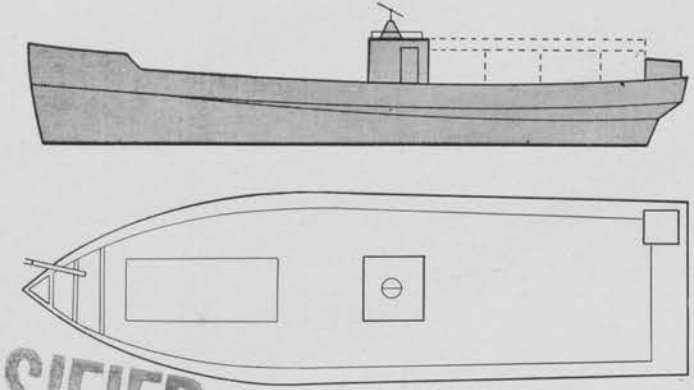


75′ (water line), 65-ton (gross) Lugger—The 53′ Type "G" landing craft is similar.

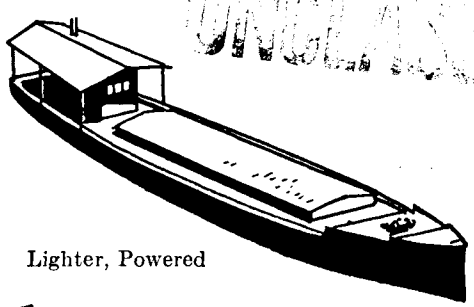
60′ (water line), 50-ton (gross) Lugger—Machine gun is a .303 Lewis type.



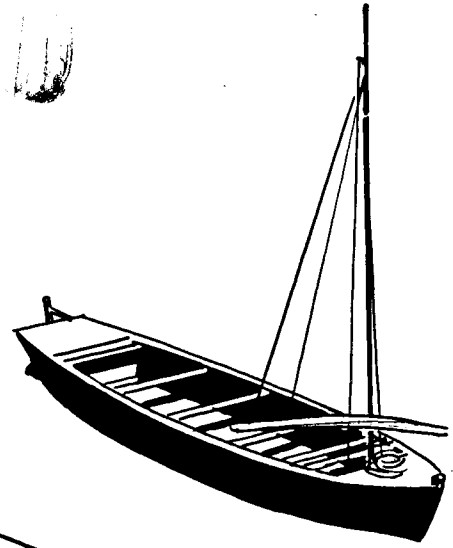




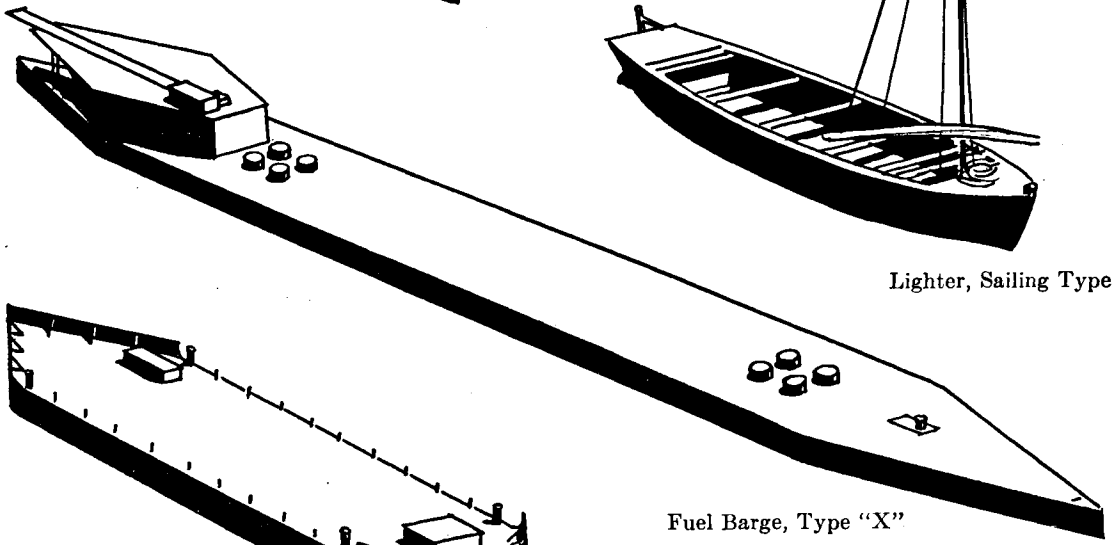
CARGO BARGES



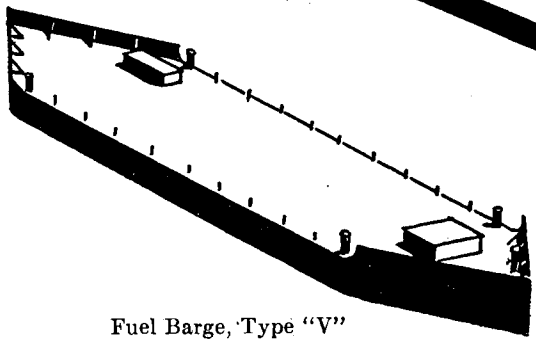
Lighter, Powered



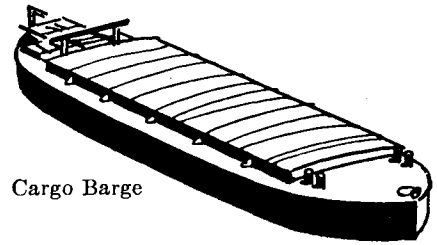
Lighter, Sailing Type



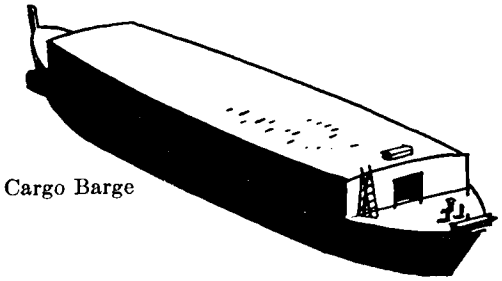
Fuel Barge, Type "X"



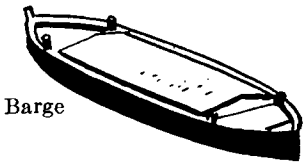
Fuel Barge, Type "V"



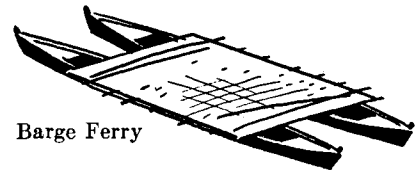
Cargo Barge



Cargo Barge



Cargo Barge



Barge Ferry

A sizable percentage of the small craft observed in any Japanese harbor today consists of types performing cargo-lighterage duty. Individually these craft are of little importance, but collectively in their vast range of types, sizes, and duties they contribute materially to the Japanese war effort. In some forms they more nearly approach the function of Minor Combatant types and are included in that section of this publication. Other barges appear under Native Craft.

The barge category includes a large group of varying types of supply and cargo vessels which are generally without propulsion or "dumb," although a few may be driven by low-powered engines. They are usually pushed or towed, sometimes in considerable numbers, by a single powered vessel or tug. For towing purposes, the Japanese have utilized, in addition to tugs, a varied collection of powered launches, patrol craft, and miscellaneous motor vessels. In general, cargo barges are of wood construction, although steel is prevalent and concrete is sometimes used; capacities naturally vary but the largest seagoing scows may carry as much as 500 tons; armament is meager although 40-mm. fire has been encountered by Allied aircraft.

The cargo barge category is so large and so varied in appearance that no visual classifications can be assigned the numerous individual types. For purposes of this publication, however, they have been grouped on the basis of function.

1. Fuel Barges—Four types of barges adapted or originally designed to transport oil in bulk are described in the following pages, some of them being standardized types which are being produced in quantity. In classifying these vessels as fuel-carrying units, one should not lose sight of their potentialities as carriers of bulk cargo—both in hold and on deck. None of the fuel barges is believed to be self-propelled.

2. Submersible Carriers—To answer the need for supplying isolated bases, the Japanese have developed unusual methods of underwater cargo service. A submarine of new design recently captured in the Philippines carried no torpedoes, was owned and operated by the Army, and was obviously designed and built as a cargo ship. Another development is a steel cargo tube which is towed underwater by submarine and released close in shore. The tube beaches itself by means of a short range compressed air drive.

3. The term Lighter may be applied to a diversified group of harbor craft used for loading and unloading cargo on large ships which cannot berth at dockside or quay. Such a group ranges from the self-propelled tug equipped with booms to the small flat-bottomed wooden boats such as Types "D" and "I" landing craft. Also included are utility barges assigned to such harbor duties as working with net or boom tenders or dredges; such specialized "tender barges" were photographed at Wake, Truk, and Luzon.

4. Cargo Barge is a comprehensive term which covers the vast group of load-carrying nonpowered vessels excepting those selected for special functions such as fuel transport or lighterage duty. Appearance varies greatly, many of the types, however, being rectangular or "double-ended" in design; recent photographic coverage of Japan proper reveals extensive use of the "double-ended" type. Capacities of cargo barges vary up to several hundred tons; few are self-propelled, most being towed by tugs or similar vessels.

5. Vehicular Barge Ferries are generally pontoon types, appearing in Australasia, including Burma and China. Some of these, by appearance, belong in the Native Craft section but widespread use warrants their inclusion in the barge category.

FUEL BARGES

With a growing shortage of tanker units, the Japanese have resorted to oil barges for the transport of bulk fuel and gasoline for wartime industrial and military needs. This use in a way parallels that of employing the sea trucks to augment larger cargo ship losses.

Four types of standard steel fuel barges have been reported by the combatant forces, each of which bears a marked similarity to the pre-war commercial types. They were assigned the designations "V," "W," "X," and "Y," and are reprinted as such in this manual. However, in the case of future new sightings, it is suggested that no new types are designated until their widespread employment as standard types is confirmed. Of the known types, no fuel barges are believed to be self-propelled or armed.

TYPE "V"

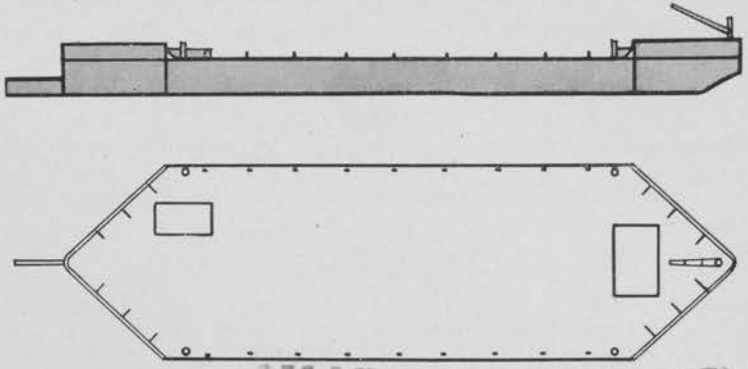
LENGTH—90′.

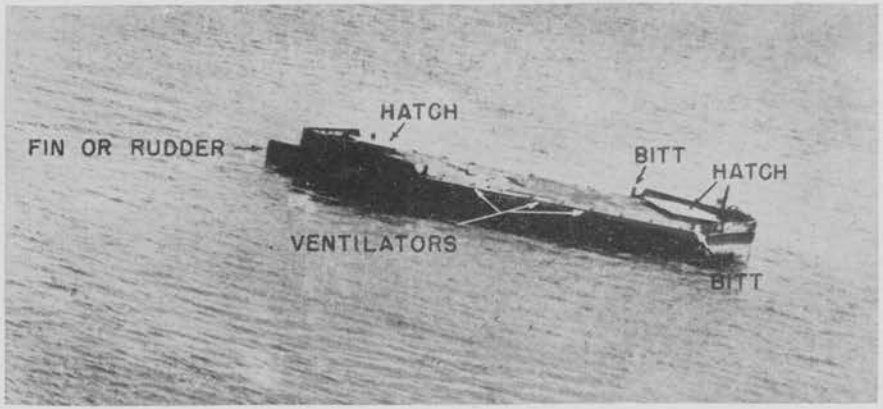
BEAM—36′.

PROPULSION—Towed.

REMARKS—Pointed bow and stern are distinctive. Large hatch and boom forward, small hatch aft.

TYPE "V"





FUEL BARGES

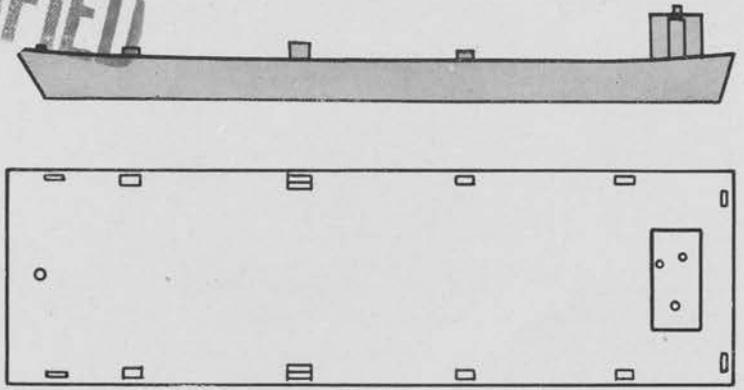
TYPE "W"

LENGTH—100′, 110′ (o. a.) reported.

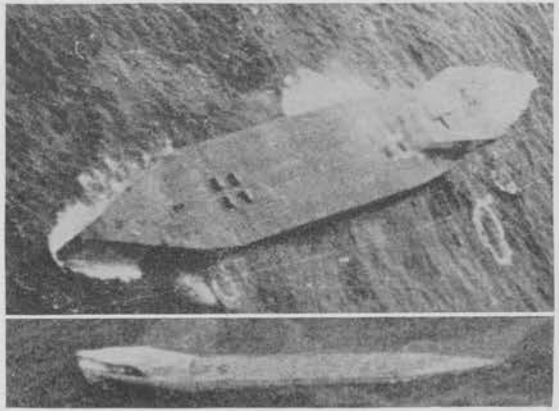
BEAM—25′, 35′ reported.

PROPULSION—Towed.

REMARKS—The rectangular scow type; common all over the world.



TYPE "X"

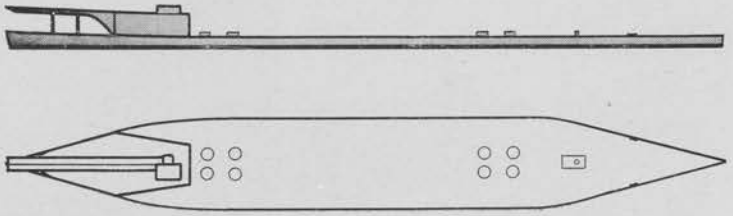


LENGTH—199′ (o. a.).

BEAM—25′.

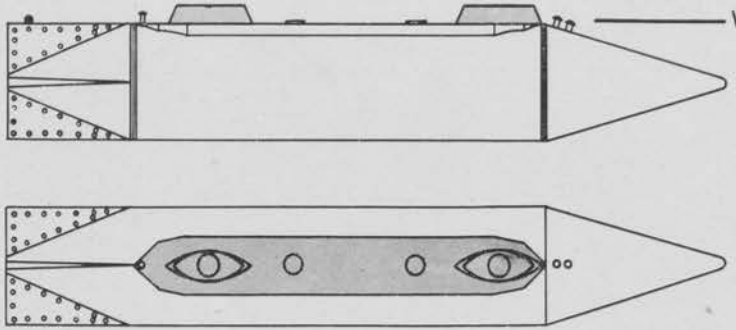
PROPULSION—Towed.

REMARKS—Semisubmerged when loaded; has been mistaken for submarine.



FUEL BARGES

TYPE "Y"



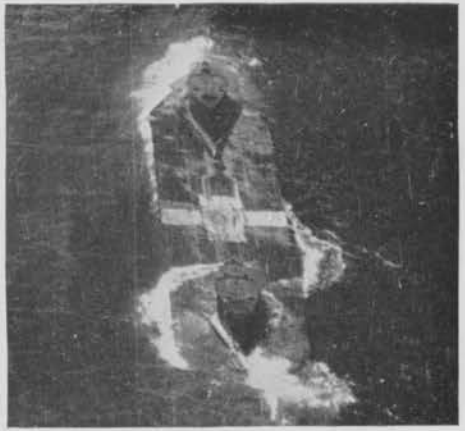
HULL—This is a semisubmersible, flat-topped cylinder, with conical bow and stern sections welded in position. The entire assembly is of one-half inch steel plate. Stern stabilizing fins are riveted together.

LENGTH—104′.

BEAM—16′.

PROPULSION—Towed.

REMARKS—This type carries cargo as well as fuel and is often seen towed in train with other barges.

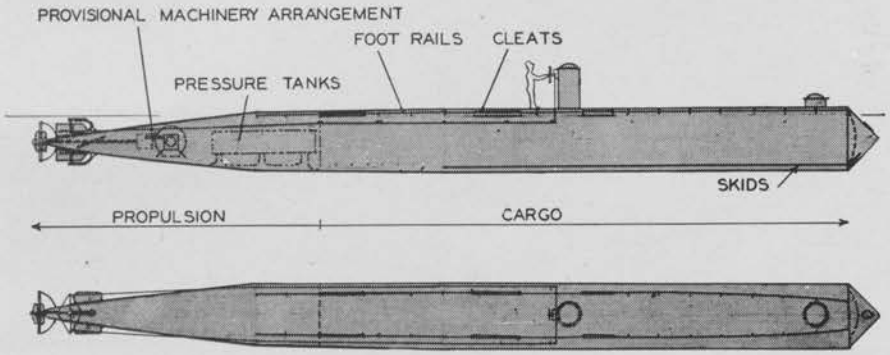


▼ Typical commercial type of double-ended fuel barge, similar to those at right.

▼ Two 50′ and 80′ barges observed at the PESCADORES. These types may be used for either cargo or fuel transport.

▼ Large seagoing type in light condition.

CARGO TUBE



This semisubmersible cargo tube was discovered at Guam. It is either towed or carried on deck by a mother submarine, released close to shore, where it travels in a semisubmerged state, and beaches itself. Obvious use is to aid in the critical problem of supplying isolated Pacific outposts.

HULL—⅜″ to ½″ steel cylindrical plating welded internally to circular angle frames.

LENGTH—80′ (o. a.).

DIAMETER—6′.

PROPULSION—Power unit located aft consists of 2 high pressure air flasks and a compressed air engine.

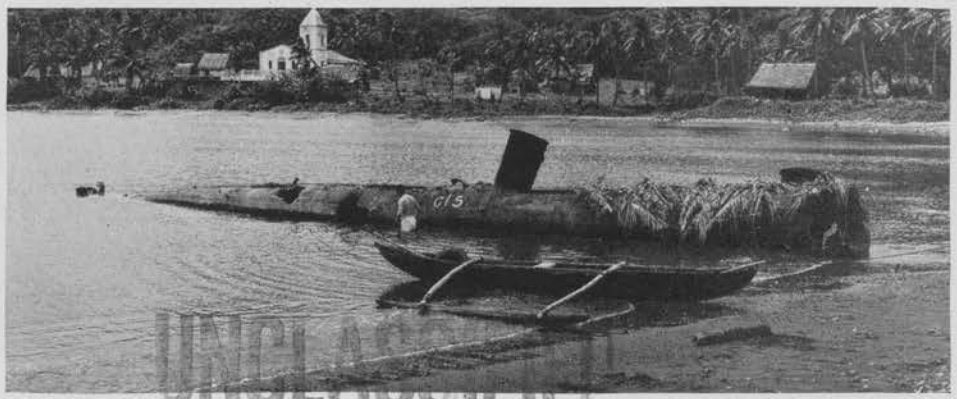
SCREWS—**2.**

ENDURANCE—6 miles (max., reported).

CAPACITY—60 to 80 fully equipped troops (est.) 1,400 cu. ft. (max. cargo).

CREW—4.

REMARKS—Tube is loaded through two 24″ diameter hatches, steered from an upright conn position.



"YU" CLASS SUPPLY SUBMARINE

Recent evidence reveals the existence of a new standard class of midget transport submarines built for and operated by the "Submarine Transport Battalion" of the Japanese Army. Designed to transport troops and supplies to forward areas, and to evacuate important military personnel, this submarine has been designated as Type "YU." It is constructed as a simplified double-hull, with cylindrical pressure hull, conical bow and stern sections, and box-like saddle tanks. Specifications are as follows:

DISPLACEMENT—290 tons (standard light, surfaced).

DIMENSIONS—137′ x 13′.

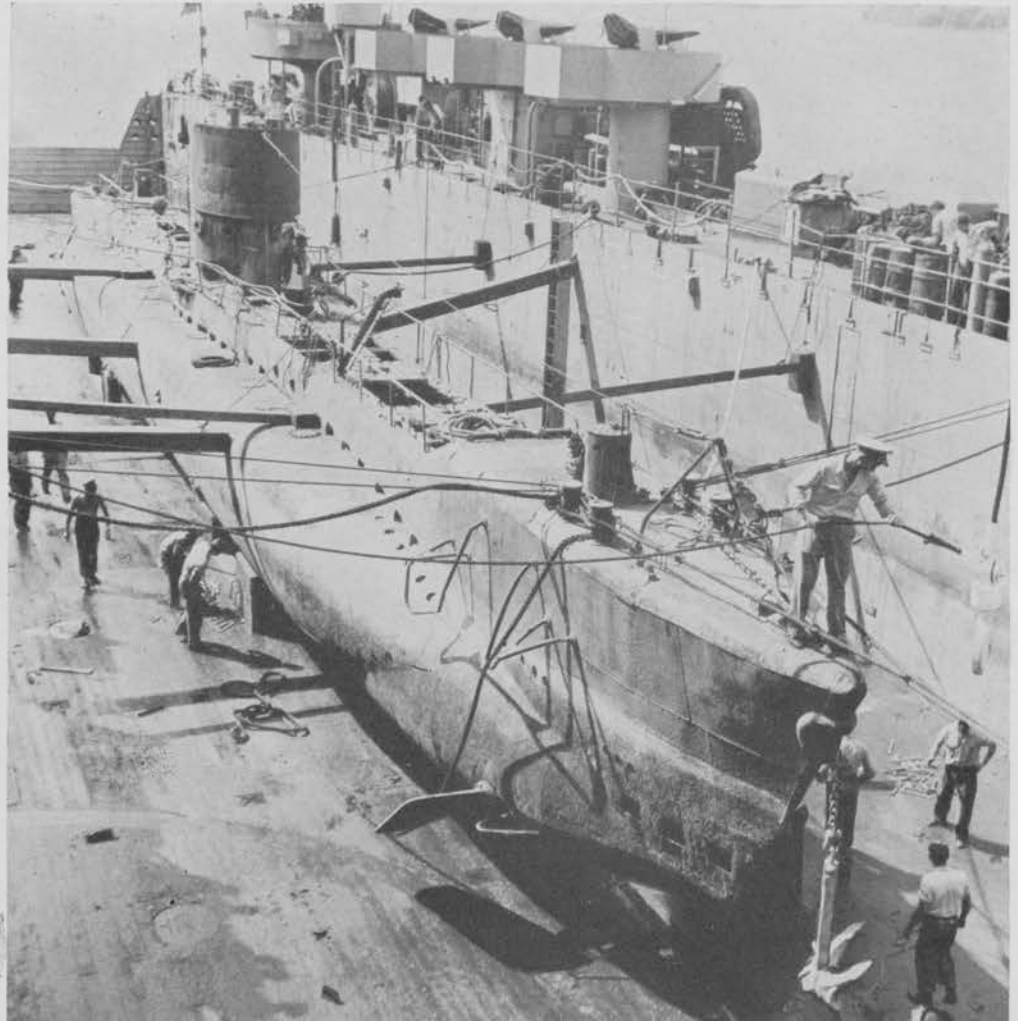
SPEED—11.15 knots (maximum surfaced). 4 to 5 knots (submerged).

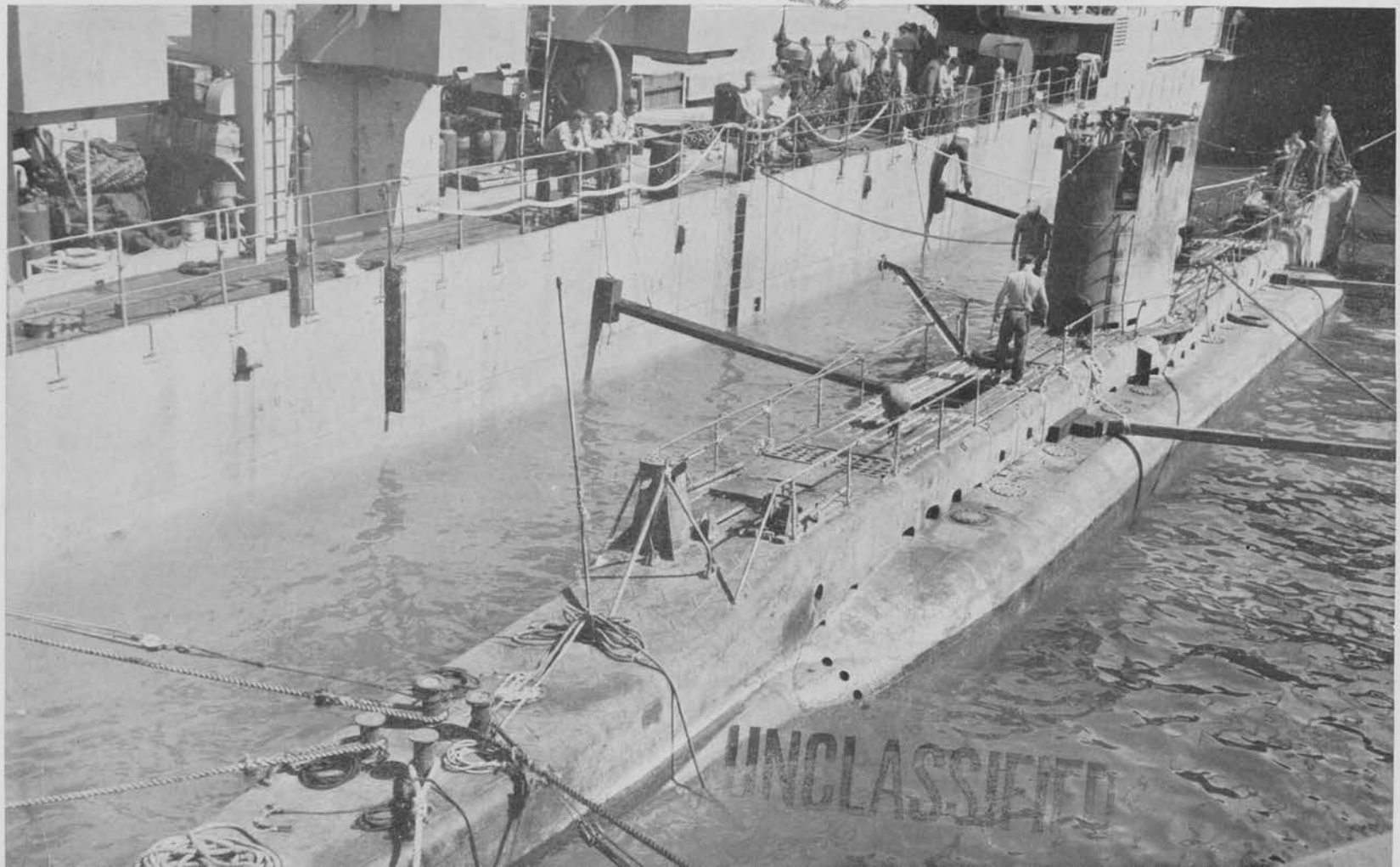
ENDURANCE—2,711 miles or 10 days cruising, surfaced.

4 hours, submerged.

CAPACITY—50 troops and 4 to 10 tons cargo or 40 to 50 tons cargo

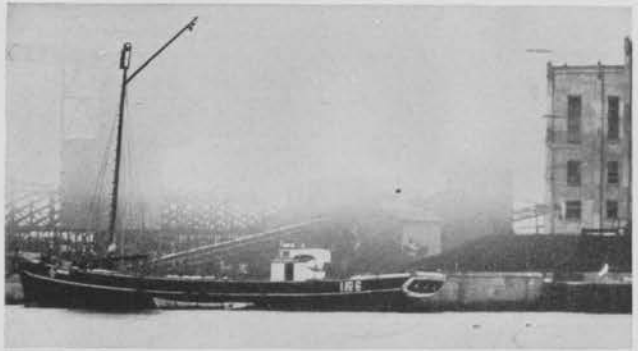
ARMAMENT—One 37-mm. (army mount), forward of conning tower.





◀ Large Manchurian flat barge for transporting oil (in holds) and bulk cargo (on deck). This type is representative of many of the barges operating for the large oil companies throughout Asia.

A popular Japanese type of Diesel-driven lighter, often seen in reconnaissance. ▶



◀ A fleet of trunk-decked Shanghai tobacco carriers, readily adaptable to transporting bulk cargo.

A 90′ Javanese Diesel lighter. ▶

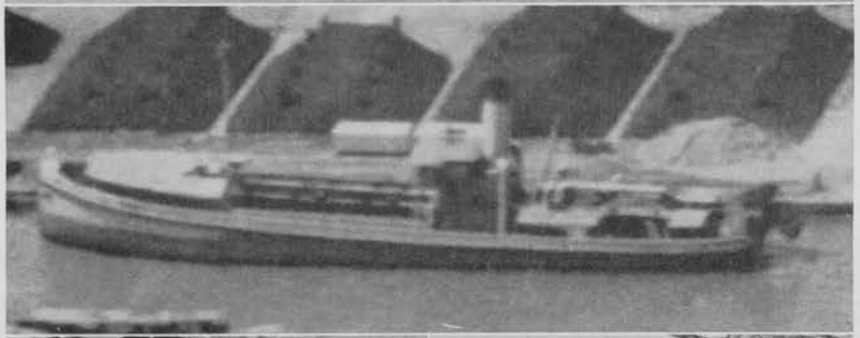
◀ Two sizes of Diesel-powered, open-hold lighters formerly employed in Sumatra.

Double-ended, Indo-Chinese, dumb river barge being towed by a passenger launch. ▶

CARGO LIGHTERS

◀ Several of a small Japanese barge fleet in tow. These ships are somewhat similar to the "lugger" type.

A fleet of native-built Malayan freight barges. ▶

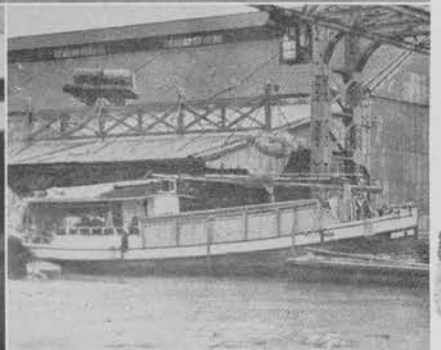


◀ The common steam-driven, combination tug-lighter often seen in industrial ports.

Junk-type lighter found in quantity throughout Japan and China. ▶

◀ *Left*—Small, native-built cargo lighter.

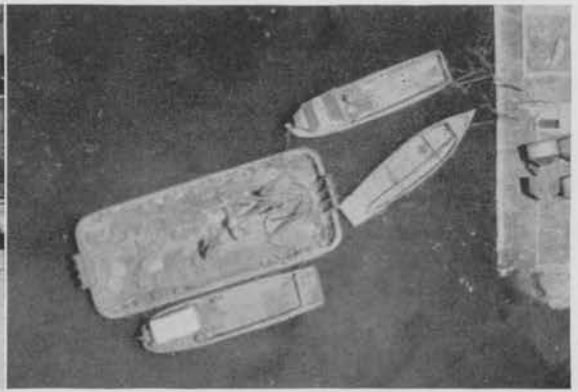
◀ Normal pre-war type lugger serving as a lighter. Notice the collapsible mast and high bulwarks.



Combination steam-driven lighter and coastal cargo carrier. Notice the heavy-lift mast and cargo boom. ▶

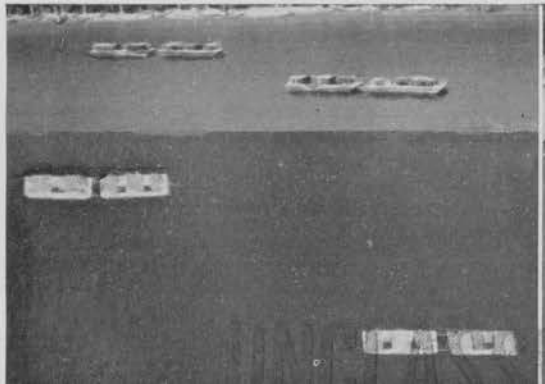
Large, wooden, rectangular scows like these are common to most Far-Eastern ports. They range up to 120′ long and 300 tons in capacity; may be dumb or powered.

Square-ended scows in Manila Harbor. The two at left have a 44-ton and 123-ton (gross) capacity.



Typical Japanese net- and boom-tending 70′ barge photographed over Truk. Notice the fore-and-aft rollers.

Oblique and vertical views of some camouflaged wooden scows seen off Mindanao.

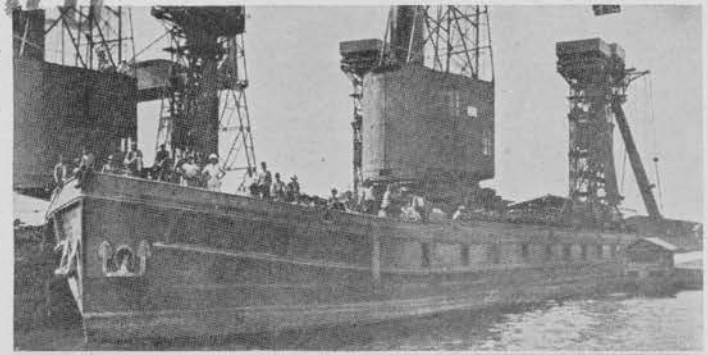


A variety of scows photographed over Panay in September 1944.

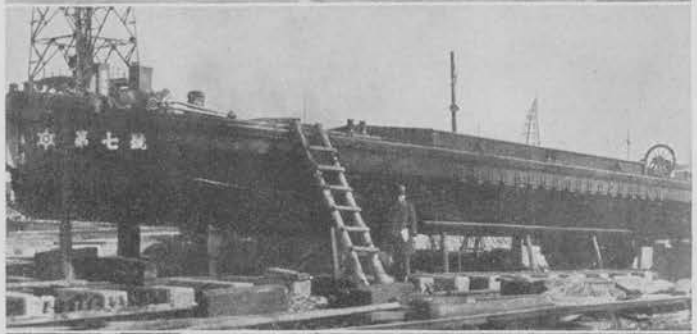
A large 150′ x 36′ barge used by the Japanese at Wake for banking sludge and coral in connection with a bucket dredge.

CARGO BARGES

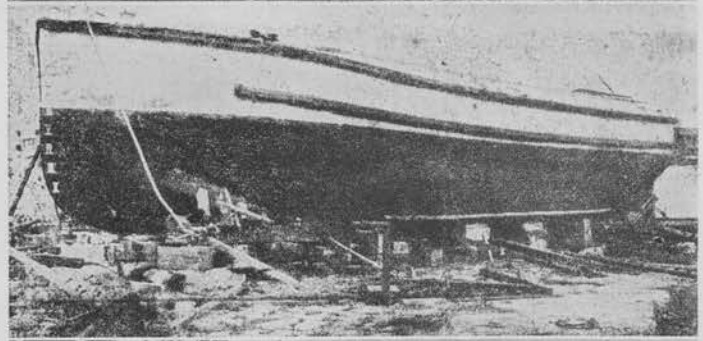
◀ Large seagoing cargo barges used for transporting troops during the China campaign.



Another large barge type for transporting coal in the Netherland Indies. ▶



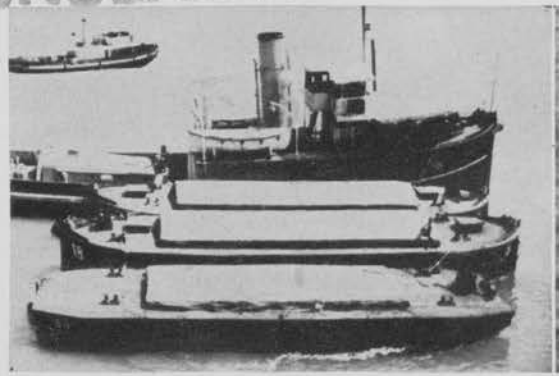
◀ Small, shallow-draft, open steel barge with approximately 3,000 cu. ft. cargo capacity.



One of the rare concrete barges built before the war at Hongkong. ▶

◀ Part of a typical barge scene in any eastern port. Notice the variety of sizes and shapes in these locally built craft. Both photos show traffic on the Sumida River, Tokyo. ▶

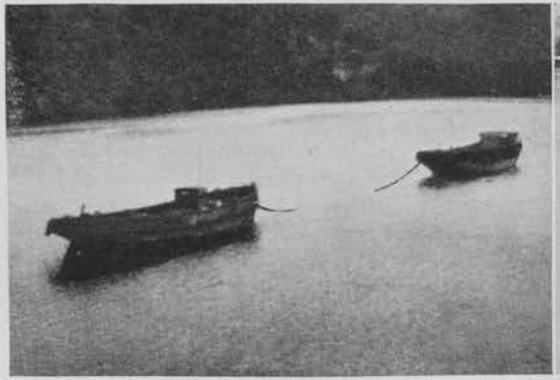
CARGO BARGES



▲ Small Malayan cargo flats towed by an ocean-going tug.

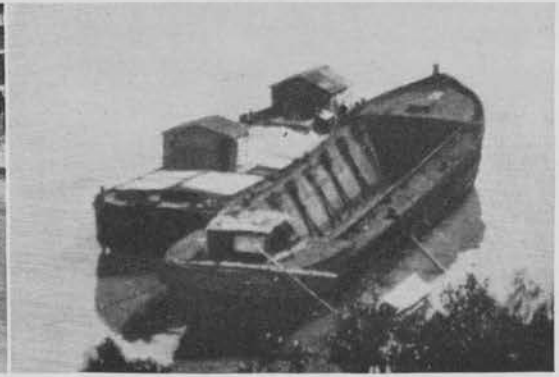
▲ Native-type cargo barge with unusually fine lines, photographed during seagoing supply operations. ▲

Philippine ore-carrying barges with ship-like hull ▼ lines.

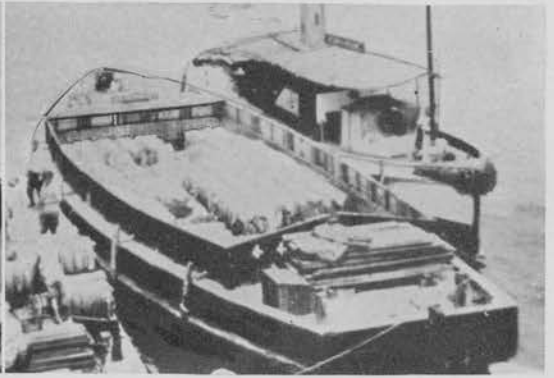


▼ Poled river barge, JAVA.

▼ An open scow and two-hatch barge, SOERABAJA.

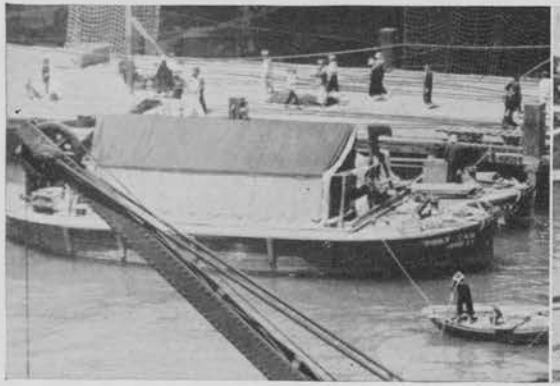


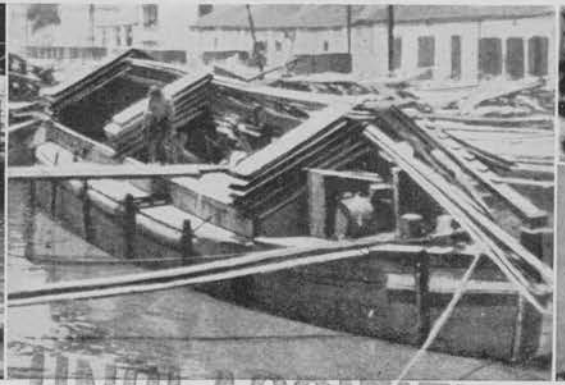
▲ Typical heavy construction used on native-built Japanese barges. Notice the hatch cover.

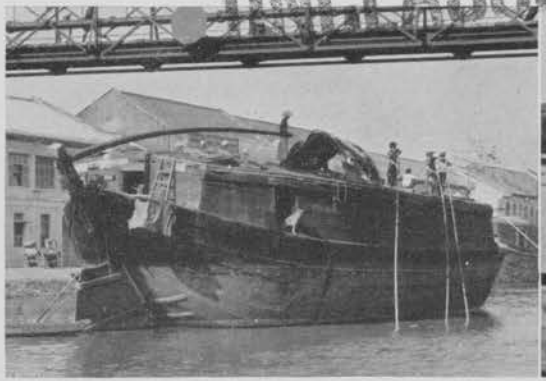


▲ The smaller Japanese flat-bottom barges shown here were prototypes of the Type "D" landing craft.

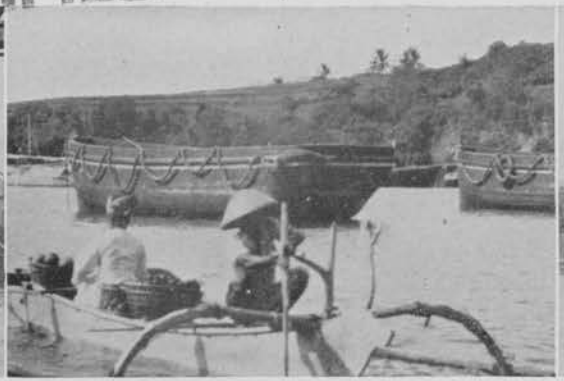
More examples of the vast variety of cargo-barge types found in the Far East. Others serving different functions are included in the Passenger, Minor ▼ Combatant, and Native Craft sections of this manual. ▼







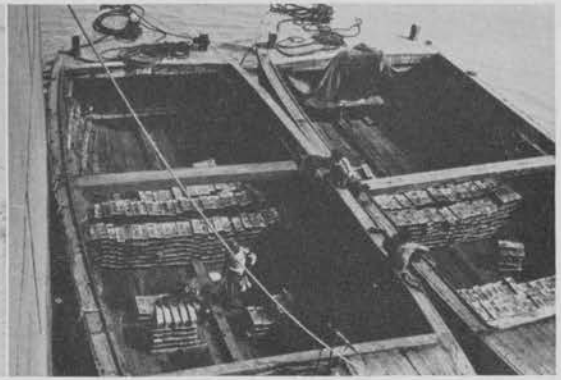
Typical houseboat rice barges in French Indo-China.



Deep, open-hold Indies barges capable of transporting several hundred tons of bulk cargo.

A Siamese version of the same type.

Type of small barge seen by the hundreds in reconnaissance over the lesser eastern ports.

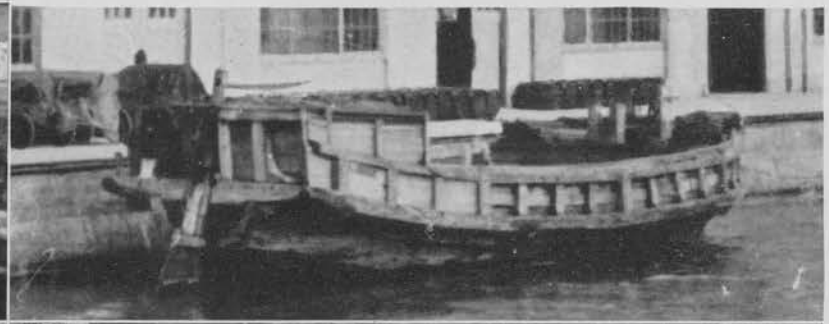


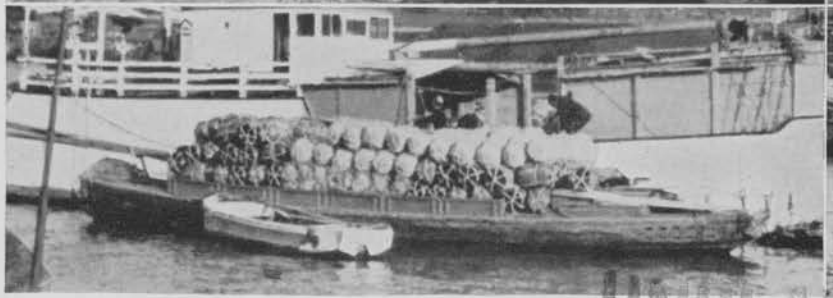
CARGO BARGES

◀ A 70′ cargo lighter with large-capacity open hold. Other photos on this page illustrate the junk-type of barge with its characteristic crude construction.

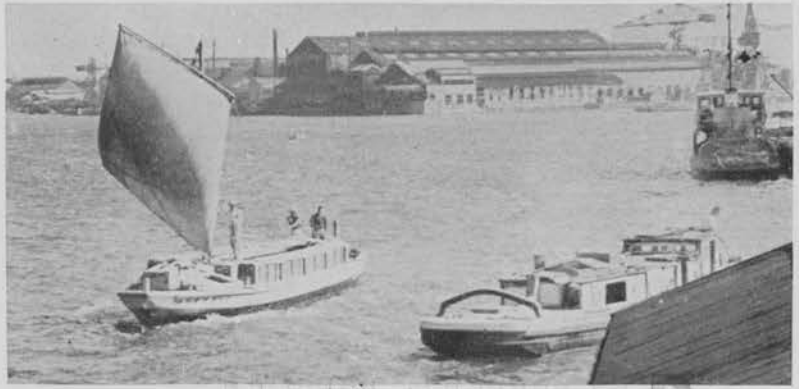
The military use the Japanese have made of their vast fleet of wooden cargo barges is brought out by this captured table for loading a "large float" (42′ x 10′):

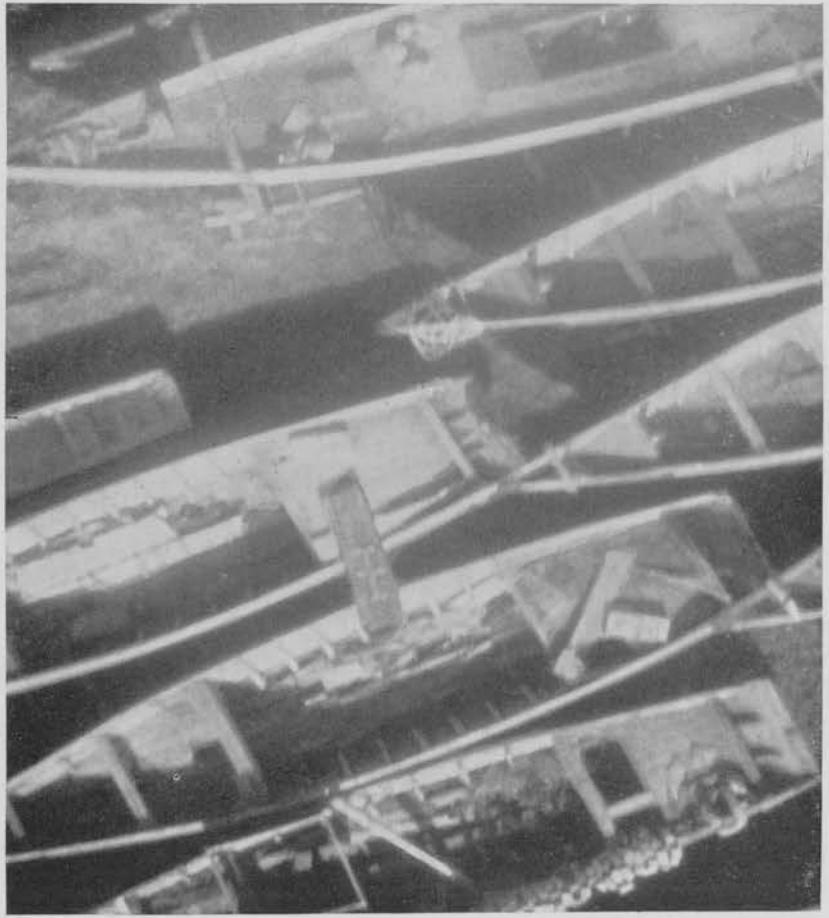
Number of troops loaded—70; horses—10; metric tons supply—15; field artillery supply vehicles—3; field artillery pieces—3; caissons—4; field artillery observation vehicles—3; 15 cm howitzers—2; transport vehicles—30; crew—4 to 5.



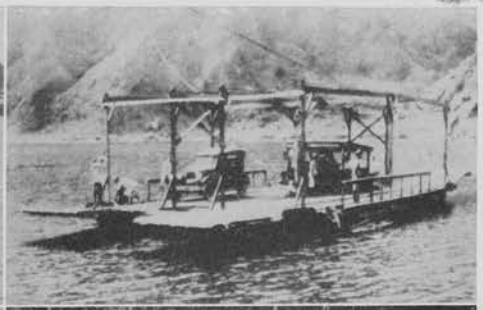


Most cargo barges are nonpowered, and rely mainly on towboats for all transport. However, during the war a great many of them have undoubtedly been fitted with machinery, such as the one above, or with sails for coastal transport. The aerial photo at right shows a group of non-propelled barges beached at Paramushiro.





BARGE FERRIES



Left—A number of 20′, light steel, Japanese Army barges were seen at Canton in 1940, where they were being used as pontoons to support prefabricated 15′ x 10′ bridge sections. These barges were propelled by sculling oars but could easily be fitted with outboard engines.

Right—Typical native-built car ferry with a capacity of six automobiles unloaded over one of four ramps. The ferry is pulled across the river by a submarine cable, with a gearing mechanism driven by a small gas engine. It is also connected to an overhead auxiliary cable for emergencies.

Left—The smaller type of native-built car ferry is typified by this two-car type built on a barge hull.

Right—This modern Borneo ferry is self-propelled and constructed of steel. Absence of landing ramps may indicate either that it is not used for vehicle traffic or that floating dock facilities are provided.

Left—The pontoon-type ferry, while basically the same as those already shown, differs considerably in appearance. This crude, native-built type consists of a truss span supported by two small boats and is poled across the open water. An overhead cable serves as a guide and anchor against the current.

Right—This more modern all-steel version is pulled by cables connected to power units located on both banks.

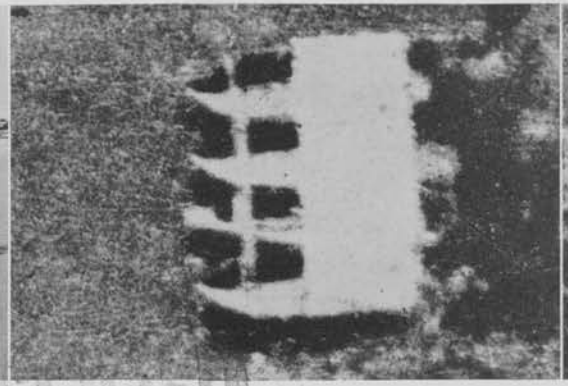
BARGE FERRIES

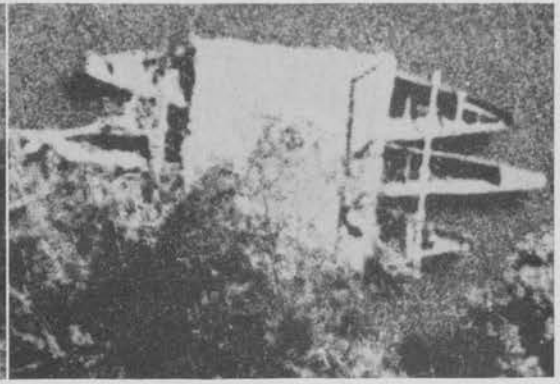
▲ Another cable-drawn type is this fully loaded, native-built pontoon for ferrying across the Labo River, Philippines. None of these ferries appear to employ the automobile's motive power as a means of propulsion.

▲ This photo shows two pontoon barges towed by a steam launch across the Mekong River.

▲ Some will have small thatched or tin-roofed structures built on the raft, as in this Mindanao Island ferry.

From the air, pontoon ferries have an unmistakable appearance, since they are always joined together by catwalks and have a rectangular "floor." Normally they would also be equipped with loading ramps. ▼





BARGE FERRIES

In parts of Indo-China certain "bacs" (ferries) are made of specially built shallow barges which are either towed across streams by a cable or poled across. Ramps for landing are bolted in place at the dock.

This peculiar type of ferry is used to transport vehicles across the Mekong River in French Indo-China. The barge in the foreground, though mainly a loading pontoon, can also be towed across as an auxiliary.

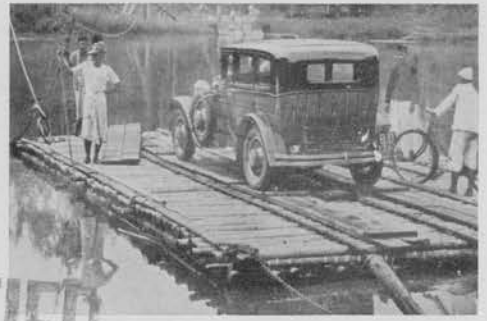
This local adaptation in Sumatra is fabricated from discarded timber and fuel oil tanks. The log rafts are also used for ferrying animals and bulk goods.

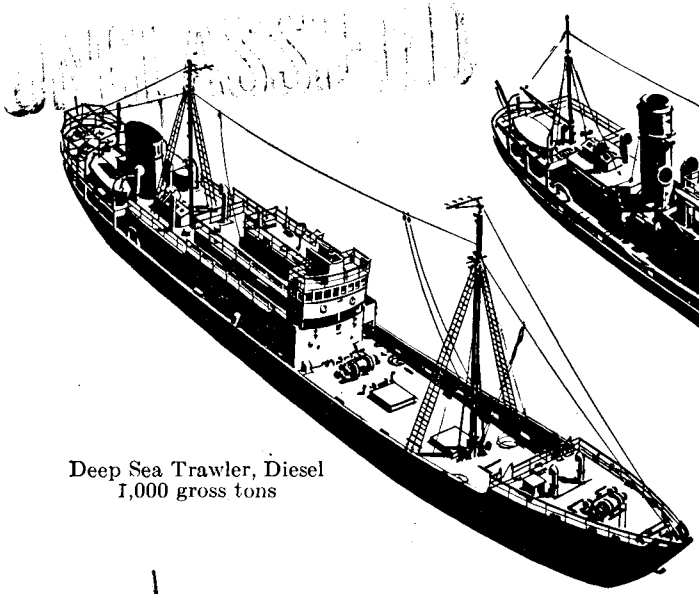
▲

A ferry operator pulls this log-raft type auto ferry across the stream by means of an overhead cable.

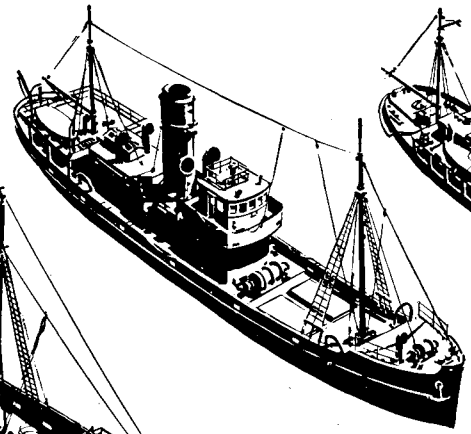
This crude Sumatra ferry consists of a matted floor spread on a wooden frame and supported by native canoes. It is poled across the water by a crew of four or more men.

▼

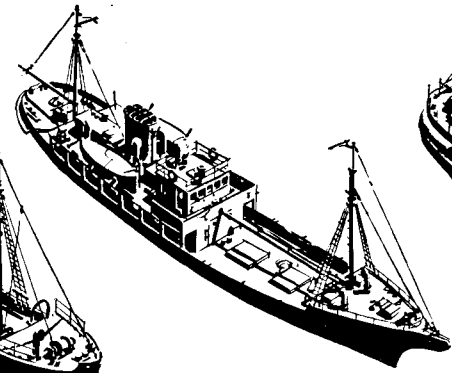




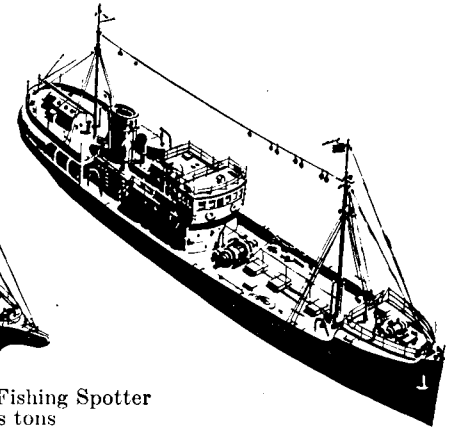
Deep Sea Trawler, Diesel
1,000 gross tons



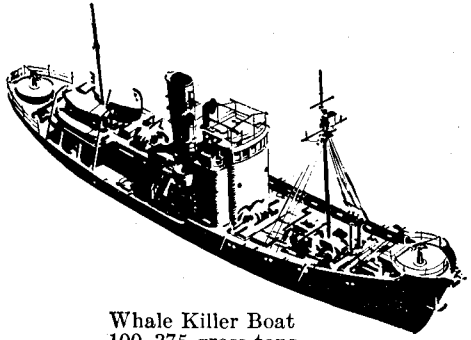
Deep Sea Trawler, Steam
200–300 gross tons



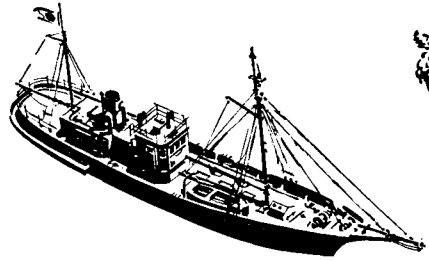
Coastal Trawler, Fishing Spotter
200 gross tons



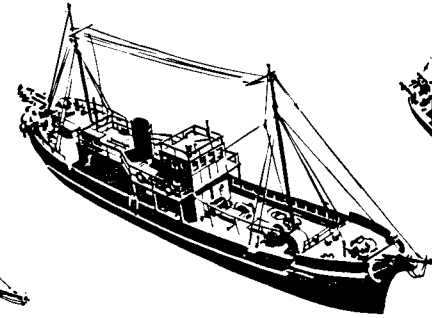
Deep Sea Trawler, Diesel
300 gross tons



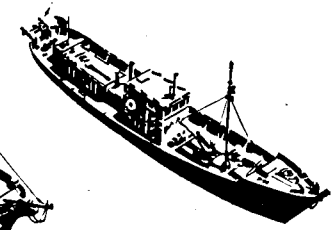
Whale Killer Boat
100–375 gross tons



Coastal Trawler, Bonito Fishing Type
100 gross tons



Coastal Trawler, Crab Tender
100–200 gross tons



Small Fishing Boat
90 gross tons
(maximum)

The Japanese fishing fleet is the largest and most vital of its kind in the world. It includes a vast variety of commercial and local types which completely cover the range from 1,000 GT down to native craft. The number of motor-driven fishing vessels alone is estimated at greater than 50,000. Since no distinct design type exists in the fishing vessel tonnage categories, the entire range has been arbitrarily separated into deep-sea, coastal, miscellaneous small fishing vessels, and whale-killer boats.

DEEP-SEA TRAWLERS AND REFRIGERATOR SHIPS

Considering the more distinct trawler types, there is a general division between older and newer design deep-sea craft. The newer design, commencing in 1930 with the KUSHIRO MARU, and exemplified more recently by the MINATO, is 300 gross tons or larger, 135 to 175 feet in length, Diesel-powered, and marked by a low stack further aft than on older designs. Refrigerator capacities range to 25 tons, and fish storage to 10,000 cubic feet. Older design (1920-30) trawlers of the deep-sea class are easily identified by a tall, coal-burner stack. This type, illustrated by HIMESHIMA MARU, is 200 to 300 gross tons, 100 to 130 feet long, is slower, and has a shorter radius than the Diesel-powered vessels.

As early as 1918 the Japanese began standardizing their trawler designs with plans for conversion. This forethought is borne out by the number of both deep-sea and coastal trawlers operating today as converted patrol craft, mine sweepers, and antisubmarine craft. These vessels have been seen with 3-inch main batteries and as many as five machine guns.

Many of the deep-sea trawlers incorporate the latest developments in refrigerator design, some having a capacity of 10,000 cubic feet. SURUGA MARU, a trawler of 990 gross tons, was alone capable of supplying a fleet unit of 14,000 personnel with perishable provisions. In addition to serving as provision ships, trawlers may be used for carrying other cargo in their holds or on deck, in the same manner as sea trucks and barges are used throughout the Pacific.

COASTAL TRAWLERS

Coastal trawlers in general include those fishing vessels under 150 gross tons, although some of the types included in this section run as high as 300 tons. They operate close to shore, either individually or in fleets, under the supervision of larger "mother ships" and sometimes function as "mother ships" themselves to smaller fishing boats. The coastal group consists of a variety of types, including fishing leaders or spotters, fishing guard craft, research or experimental craft, seiners, drifters, liners, crab tenders, motor fish carriers, and a variety of very small motor-driven fishermen. No generalization can be made regarding their construction, since both steel and wooden hulls have been used either separately or in combinations. Diesel power has been adopted for the more modern vessels, but semi-Diesel types are also prevalent and auxiliary sails are used by most of the smaller boats when weather permits. The prefix "coastal" does not preclude this group's adaptation to wartime use, and coastal trawlers may be observed anywhere in the Pacific area as minesweepers, subchasers, or picket boats.

Generally, the main armament consists of a 25 or 57 mm. automatic weapon mounted on the forecastle, with light MG on the bridge or on the superstructure abaft the bridge.

MISCELLANEOUS FISHING VESSELS

These vessels comprise the largest number of motor-driven fishing craft. They are generally about 90 gross tons or under and are extremely varied in appearance.

They serve primarily as watcher boats and as such may be equipped with radio or other signaling device. When armed, a light machine gun and depth charges are fitted.

Small fishing vessels are used extensively as small cargo carriers and a great number of these have been reported and photographed throughout the South Pacific. Sometimes called "luggers," most of these are actually a fishing-boat design. Obviously most of these vessels engage in fishing for Japanese island bases, in addition to serving as interisland cargo carriers and watcher boats.

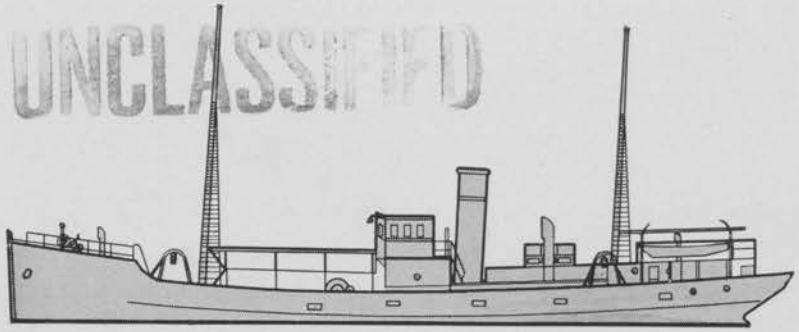
WHALE-KILLER BOATS

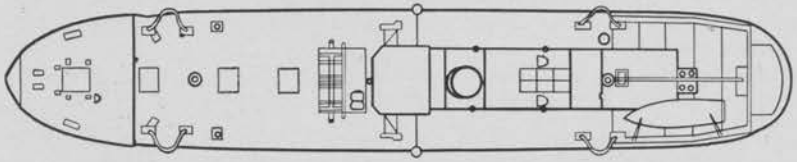
Killer boats were designed to harpoon whales and tow them to their "mother ship" whaler for processing. These seaworthy vessels are constructed of steel and readily lend themselves to conversion as patrol, anti-submarine, and mine-sweeping craft.

In appearance, their high sheer forward and aft, low freeboard, tall bridge and stack, and one-deck superstructure from bridge to mainmast make these vessels a distinct type. In the newer types, bridge and stack are lower and further apart.

Whale killers range from 100 to 375 gross tons, from 90 to 140 feet in bp. length, usually carry a 3″/40 cal. and as many as six 7.7 and 13-mm. machine guns, as well as depth charges and mine-sweeping gear. They are also equipped with radio, direction finder, hydrophones, and degaussing cable.

300–1,000 GT DEEP-SEA TRAWLERS





KUSHIRO MARU is typical of the older large type trawlers.

KUSHIRO MARU, KEINAN MARU, YUKI MARU

BUILT—1928.

LENGTH—135′ (water line).

BEAM—24′.

TONNAGE—312 (gross).

MINATO MARU is a modern motor-driven trawler, typical of the type generally requisitioned by the Japanese Navy. Operating as an XAF, this ship, together with three other trawlers, supplied the entire Eleventh Air Fleet (17,000 troops) with monthly rations of 700 tons staples and 800 tons of fresh provisions.

BUILT—1934.

NAVAL STATUS—XAF.

LENGTH—177′ (water line).

BEAM—31′.

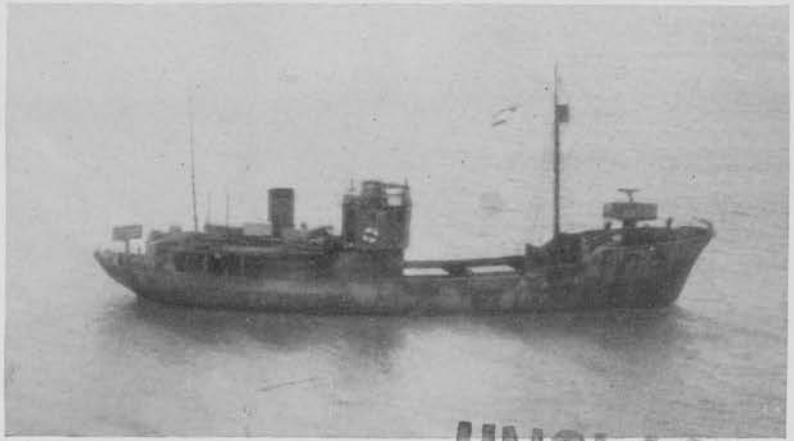
TONNAGE—664 (gross).

CAPACITY—Partially refrigerated.

▼ KUSHIRO MARU ▲

▼ MINATO MARU

DEEP-SEA TRAWLERS 300–1,000 GT



WARTIME USE

As early as 1918 the Japanese Government instituted specifications regulating all civil and commercial trawler construction, in order to provide ships easily convertible to naval functions. This far-sighted program has made it possible to expand the naval fleet of gunboats, patrol craft, mine layers, and mine sweepers to a vast extent without interrupting the building program of other essential types.

For a complete picture of converted small craft fulfilling naval functions, separate lists are included in another section of this manual.

XPG (Gunboats), XPC (Subchasers)

Trawlers converted to either of these functions mount a twin 25-mm., or single 3″(or sometimes 4″.7) naval gun on the forecastle, several 7.7-mm. or 13.2-mm. machine guns on the bridge or stern, and depth-charge dropping gear on the fantail. All are equipped with searchlights, RDF, transmitting/receiving radio equipment, and degaussing coils. This conversion generally corresponds to our own YP's.

XAF (Storeships)

Since Japan's supply of refrigerated cargo-carrying ships is quite limited, many trawlers have been pressed into service as provision carriers for supplying outlying bases.

XAM (Mine Sweepers)

As in the case of all other navies, the Japanese have converted a great many trawlers to mine-sweeping duties. It must be remembered that all fishing boats (as well as cargo carriers and other small craft) are in all probability serving the dual function of patrol and supply. As XAM's, these vessels are fitted with two bow sponsons for paravane gear, degaussing coils, racks of mine-sweeping floats, and at least one 3″ and several automatic machine guns. Searchlights, RDF, depth charges, hydrophones, and radio, are also standard features.

300–1,000 GT DEEP-SEA TRAWLERS

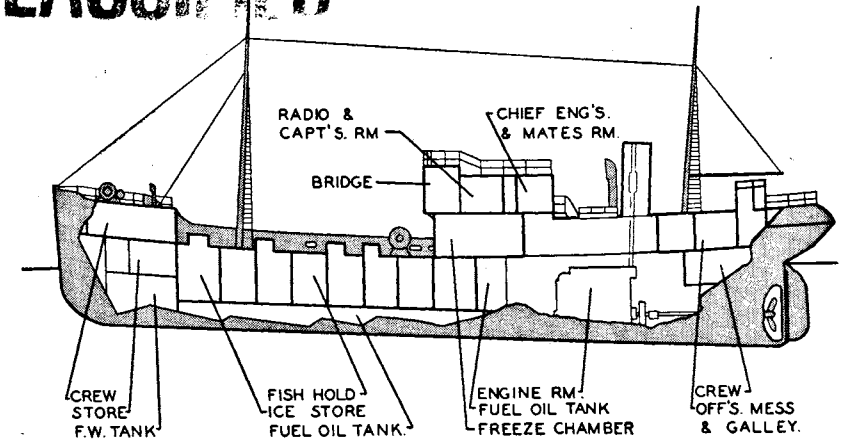
ORIGIN

In peacetime these were the mother ships of the large Japanese fishing fleet, operating with groups of smaller fishermen in all areas of the Pacific Ocean, including the Southern California-Mexico banks. Their main function was to carry provisions for this fleet, stow the catch in refrigerated holds, and to serve as fish transports.

RECOGNITION

All oceangoing trawlers follow one basic design with the greatest variations separating the old from the new types. Regardless of age, most large trawlers have a raised forecastle, plumb bow, two masts (mainmast abaft the stack), and a large superstructure extending aft of amidships. The stack is the main variable feature—tall, thin, and located immediately abaft the bridge on older types; or short, broad, and located farther aft on the newer types.

From the air, most large trawlers may be mistaken for engines-aft freighters. However, a glance at the hatch type will differentiate them, since all trawlers have a series of small rectangular hatches, rather than the one or two large openings. The cross-sectional view at the right illustrates the general design of a typical trawler.

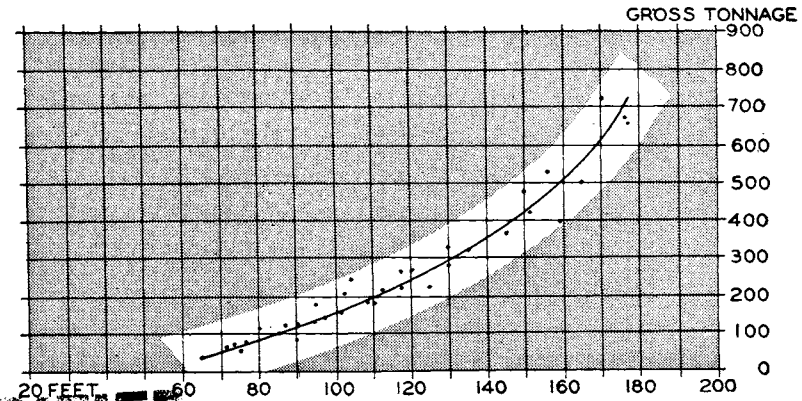


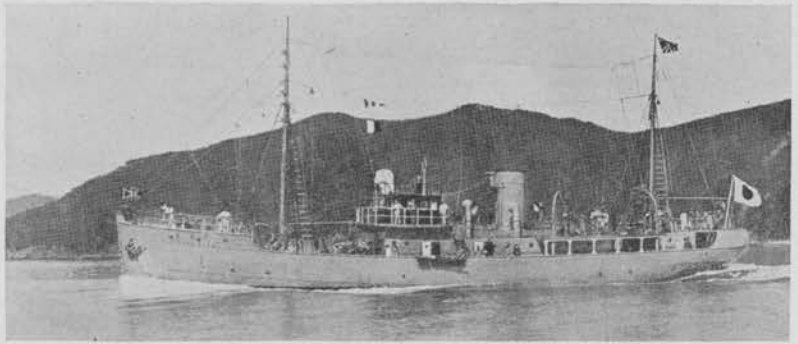
CHARACTERISTICS

The tonnage/length chart shown at right was prepared from a variety of known trawler examples, and should provide a workable average for interpreting all trawler sightings. Additional characteristics applicable to this range of deep-sea trawlers follows:

GROSS TONNAGE RANGE—300 to 1,000.
LENGTH (bp)—135′ to 176′.
BEAM—24′ to 31′.
DRAFT—11′ to 16′.
SPEED—10 to 13.5 knots.
PROPULSION—Diesel.
FUEL—Oil.
RADIUS—Minimum, 2,000 miles.
NHP—67 to 194.

NOTE.—Although deep-sea trawlers cover the range from 300 to 1,000 gross tons, the numerically largest group falls between 300 and 650 gross tons.





▲ HISHUN MARU

A special trawler type built as a fishing industry survey vessel.

TONNAGE—318 (gross).

SPEED—13 5 knots.

YATSUSHIRO MARU, SAPPORO MARU, KIRAMI MARU, MAMIYA MARU, AZUCHI MARU—

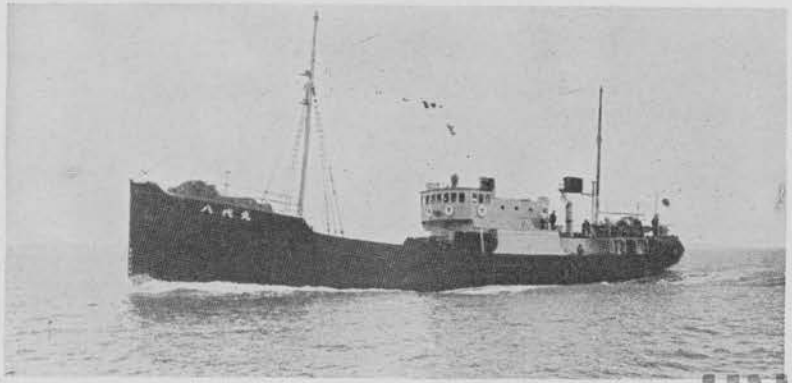
The last two trawlers are operating as XAP's.

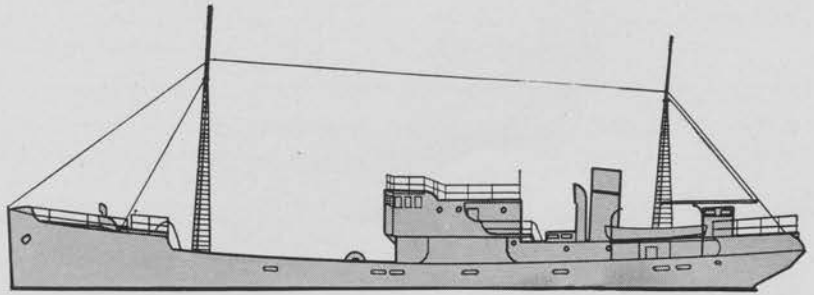
COMPLETED—1930.

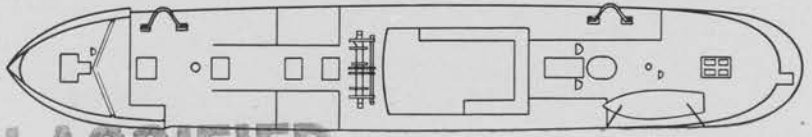
DIMENSIONS—145′ (water line) x 24′.

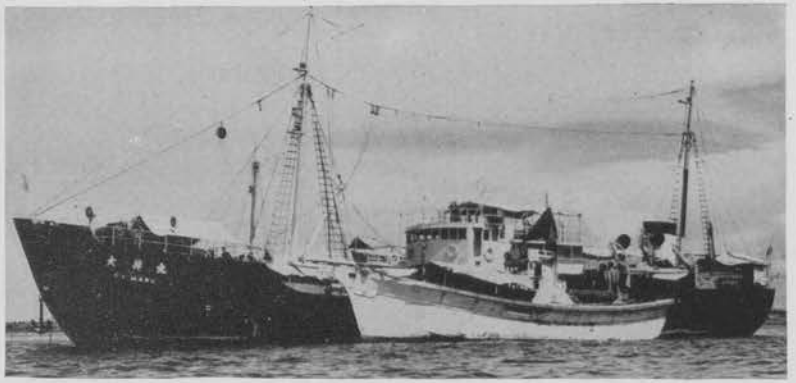
TONNAGE—360 (gross).

This design typifies all newer deep-sea trawlers in appearance features.

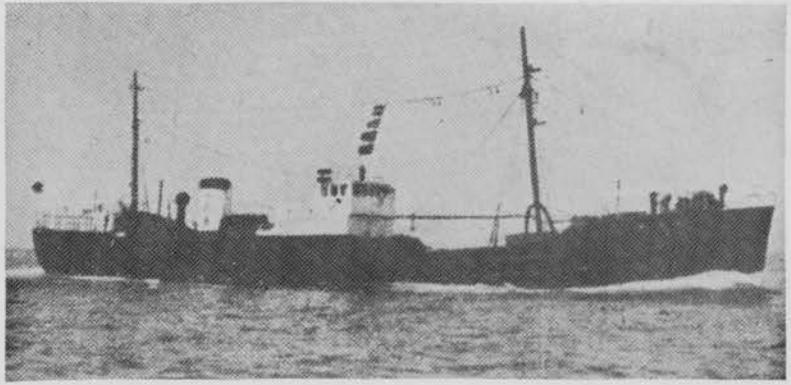






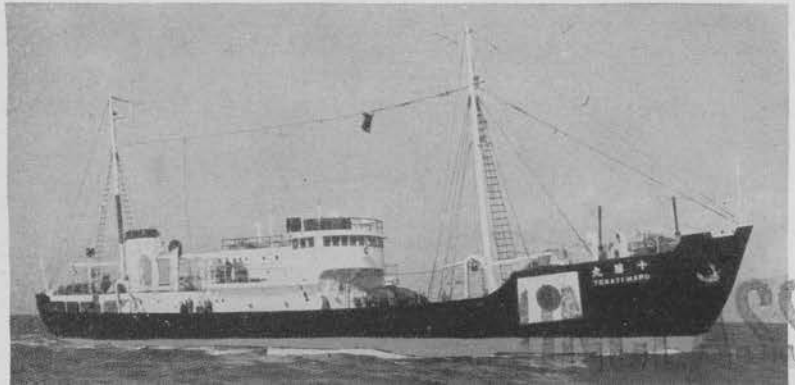


▲ **OI MARU**—Listed as an XAM.
COMPLETED—1939. TONNAGE—498 (gross).
DIMENSIONS—164′ (water line) x 27′. A lugger is in the foreground.

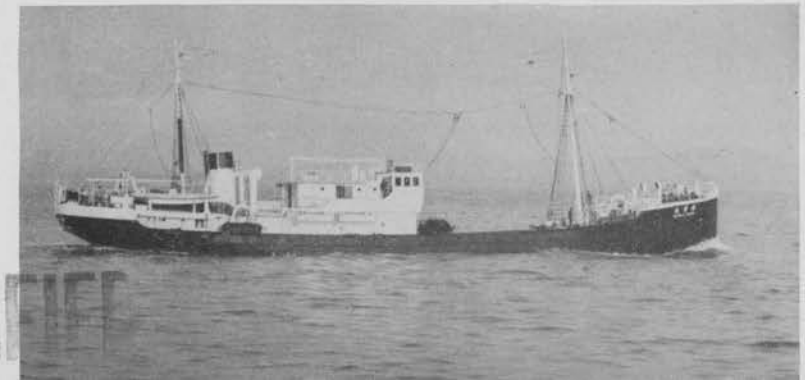


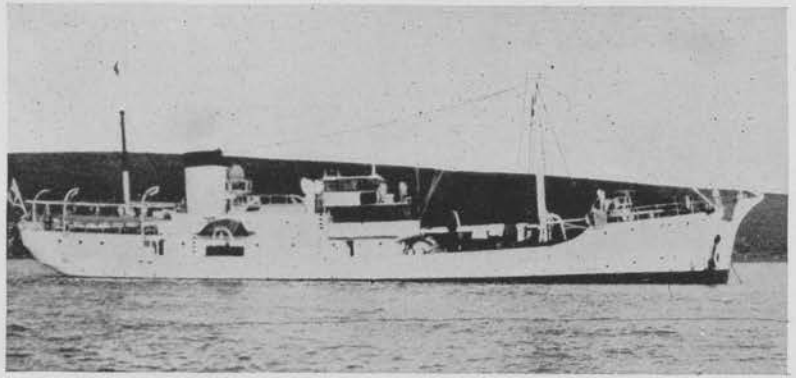
▲ **TAIYO MARU, TENYO MARU No. 2**—Latter is an XAF.
COMPLETED—1925. TONNAGE—670 (gross).
DIMENSIONS—176′ (water line) x 31′.

▼ **TOKATI MARU**—Typical of the most modern types.
COMPLETED—1941. TONNAGE—498 (gross).



▼ **SENDAI MARU**—Listed as an XAF.
COMPLETED—1933. TONNAGE—473 (gross).
DIMENSIONS—150′ (water line) x 26′.





▲ **SHUNKOTSU MARU**—A government "Fishing Industry Inspection Ship."

COMPLETED—1928.
DIMENSIONS—156′ (water line) x 30′ x 13′.
TONNAGE—521 (gross).
SPEED—13 knots; 1,500 hp.

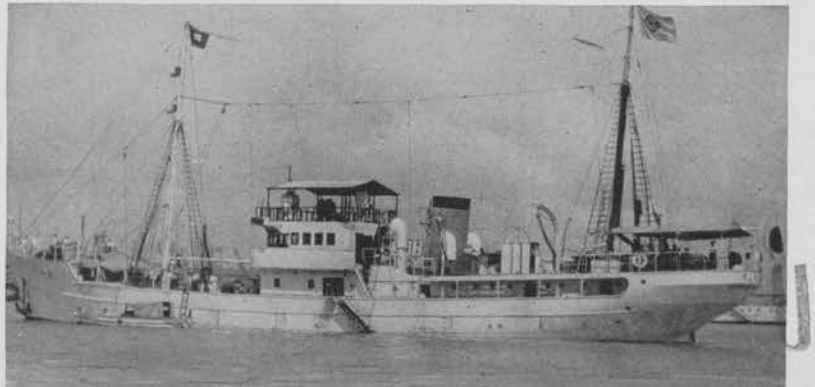
▼ **HAKUHO MARU**

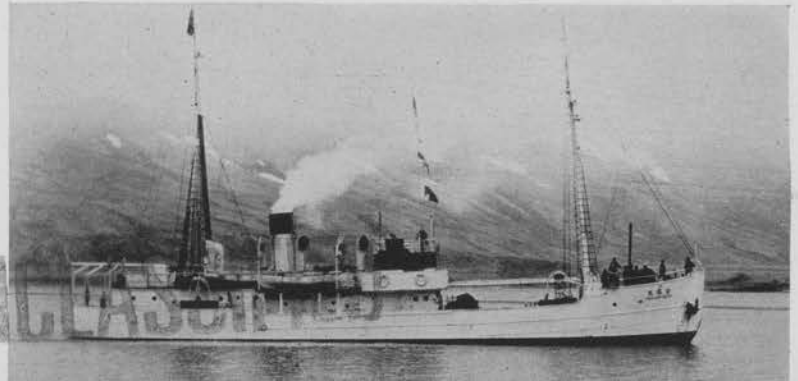
With three other small XAF's, it supplied the 8th Air Fleet (40,000 troops at RABAUL) with monthly rations of 1,400 tons staples, 1,400 tons perishable provisions.

COMPLETED—1922.
DIMENSIONS—130′ (water line) x 25′.
TONNAGE—332 (gross).

▼ **SHOAN MARU**—Another "Fishing Industry Inspection Ship;" now an XPC.

COMPLETED—1930.
DIMENSIONS—151′ (water line) x 27′.
TONNAGE—417 (gross).





200–300 GT STEAM TRAWLERS

All trawlers built prior to 1925 are of this type and general design. Slower speed and shorter range have influenced their naval assignment to mine sweeping, although a few are performing XAF and XPC duties.

From a recognition point of view, this type may bear a certain resemblance to the steel sea truck or powered tug-lighter. However, it can always be identified as a trawler by the characteristic long deckhouse. To differentiate steam trawlers from the newer Diesel types, look for the tall, thin stack placed immediately abaft the bridge. Other identifying features are the numerous high ventilators and the broken profile of the engine-room deckhouse.

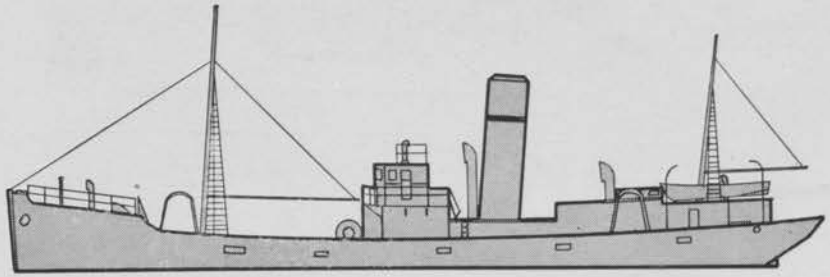
In order to interpret a sighting, the tonnage/length chart preceding the "Trawlers" section should be studied. As an additional aid, the following data have been included to indicate the range within which all steam trawlers will occur:

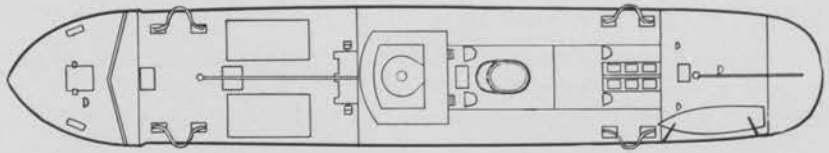
TONNAGE—200 to 300 (gross).

LENGTH—115′ to 135′ (water line).

BEAM—22′ to 25′.

SPEED—8 to 9½ knots.





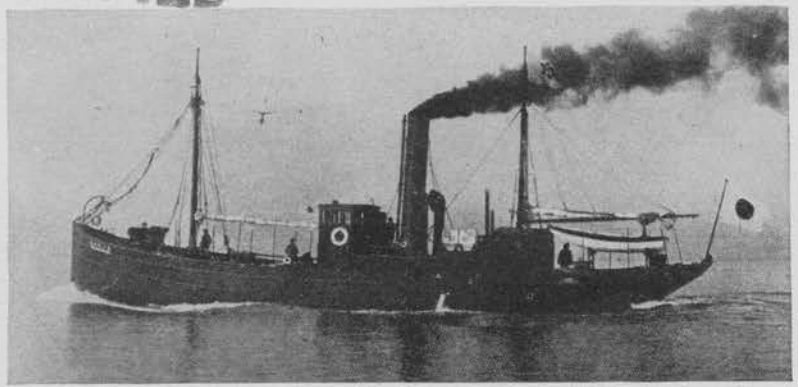
▲

◀ **HIMESHIMA MARU**—Listed a an XAM.

TONNAGE—274 (gross).

DIMENSIONS—130′ (water line) x 24′.

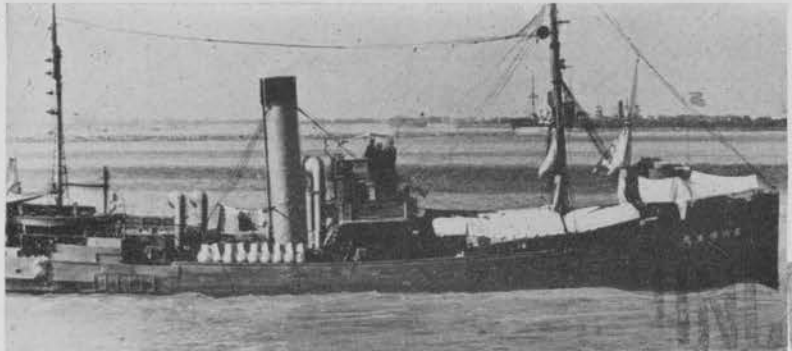
▲ An unidentified armed mine-sweeping steam trawler. Notice the added bridge and poop structures.



▲ **BOCHO MARU**—An old type of flush-deck steam trawler.

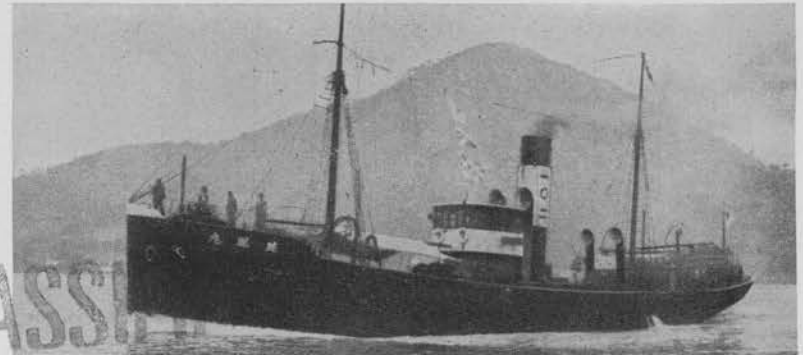
HAKATA MARU No. 2, No. 3, No. 6, No. 7

Photo shows one of these XAM's during the China campaign. Notice the light bow mount and the row of mine-sweeping floats. Tonnage is 262 (gross).



▼ **EIFUN MARU**—Another XAM.

TONNAGE—216 (gross).
DIMENSIONS—118′ (water line) x 22′.



150–300 GT SMALL TRAWLERS

The vast majority of Japanese trawlers fit into this category, under one of two headings—either fishing boats or special types.

The first group includes all those vessels which are designed to fish either singly or in groups, or to act as mother ships for those groups.

The second group takes in all Government and privately owned trawlers designed to perform the many specialized functions connected with the fishing industry. Examples of these are the "fishing spotters" or "leaders," which engage in the exploration and survey of fishing areas, the experimental fishermen, and the various training, salvage, and "guard" ships assigned to the fishery schools or fleets.

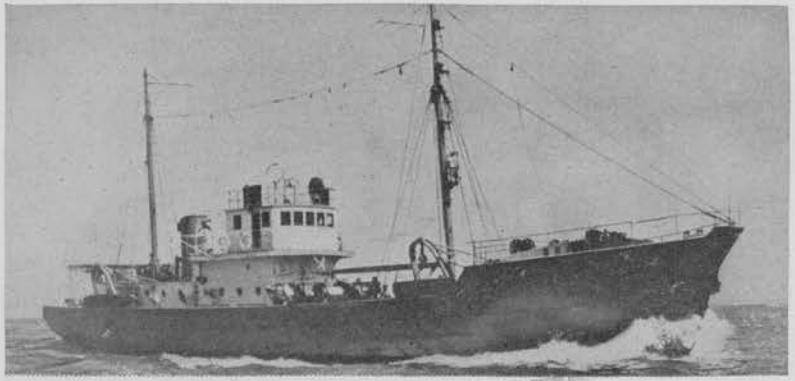
The FUJI MARU and KAMITAKA MARU, hown below, are representative of this group.

All small trawlers considered in this category have the same general characteristics, regardless of function. These can be outlined as follows:

TONNAGE—150 to 300 (gross).
LENGTH—98′ to 135′ (water line).
BEAM—20′ to 24′.
SPEED—8 to 12 knots.
DRIVE—Diesel or steam-reciprocating engines; auxiliary sail often carried.
CAPACITY—Refrigerated holds on special types.

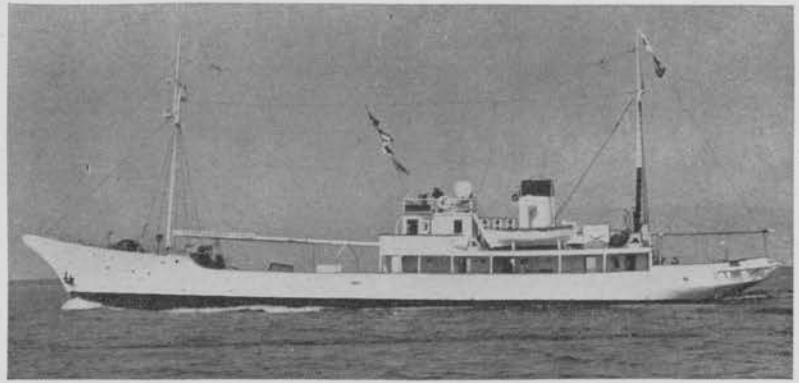
KAMITAKA MARU—A former Fishery Institute Training Ship owned by the Department of Agriculture and Forestry.

COMPLETED—1937.
TONNAGE—236 (gross).
DIMENSIONS—114′ x 21′ x 11′.
SPEED—11.5 knots; 450 hp.



FUJI MARU—A privately owned fishery spotter boat.

TONNAGE—213 (gross).
DIMENSIONS—124′ x 23′ x 10.6′.
SPEED—10 knots.



NAVAL USE

XPC (Subchaser)

Ships in this category make up the great majority of the XPC's converted for harbor and coastal sub-hunting duties.

Although used as escorts for coastal convoys, they seem best suited for patrol duties around bases. A typical XPC conversion of this type appears in the photographs shown alongside. Its armament and equipment is reported as follows:

> One 57-mm. on forecastle, 4 light MG's on superstructure, 4 depth charges in two fantail racks, two-way radio, RDF, and type KE hydrophone equipment.
>
> Others have been seen with only 2 light machine guns plus depth charges.

XAF

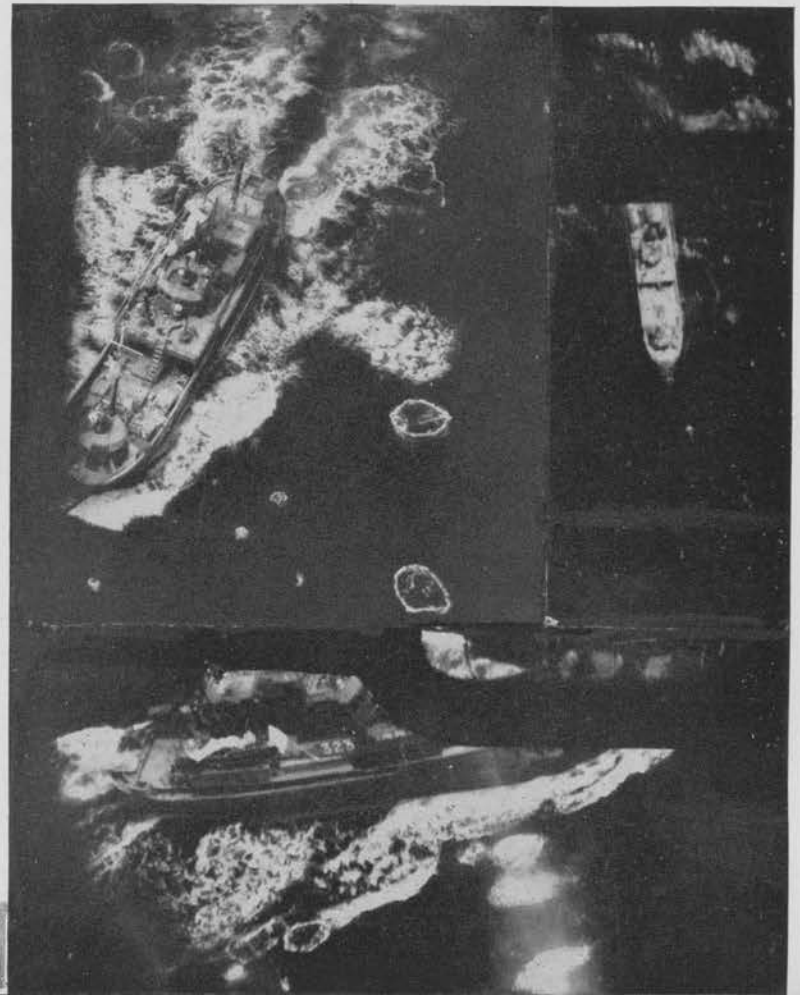
A great many of the "special" types of small trawlers, most of which were built with refrigerated holds, have been pressed into service as small provision supply ships. Others have merely been added to the cargo-carrying fleet as the necessity grew.

XAM

The older and slower types, as in the steam trawlers, are usually converted to mine-sweeping duties.

It must be remembered that Japan's economy still depends a great deal on the fishing industry. For this reason, a large percentage of the fishing fleet, and particularly this type, will still be engaged in its normal peacetime pursuits.

133 For a complete list of the ships in this category now engaged in naval duties, see the statistical section of this manual.



150-300 GT SMALL TRAWLERS

Generally speaking, this smallest type of trawler still maintains the identifying characteristics of the larger types, but in a compressed form.

The main appearance characteristics can be summarized as follows:

—Superstructure extends aft from amidships, but stops at mainmast.

—Deck may be flush or with slightly raised forecastle.

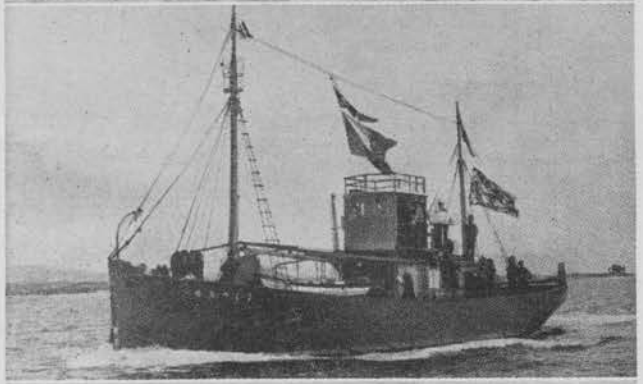
—Stack is low and separated from bridge.

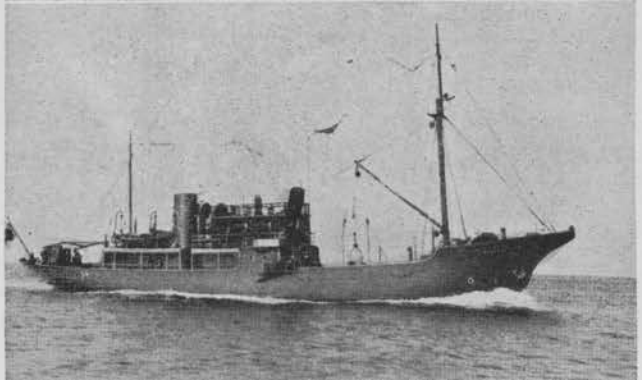
—Bow may be plumb or clipper with bowsprit.

—Circumferential catwalk for line fishing may be fitted.

—Hatches are small and numerous.

—From the air, beam/length ratio is high; hull sides are flat.





◀ TAIAN MARU—
An XAM built in 1930.
TONNAGE—193 (gross).
DIMENSIONS—120′ (water line) x 19′.

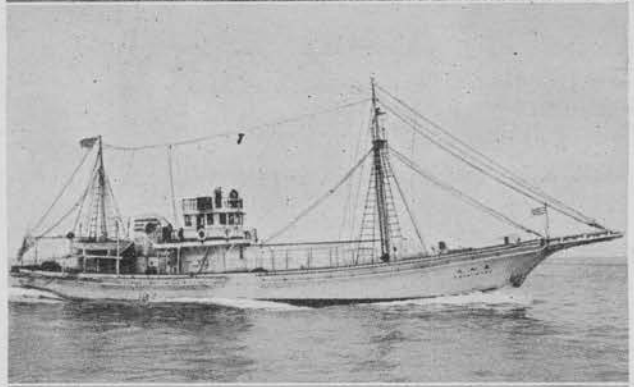
FUSA MARU- ▶
A typical "fishing fleet leader": training and experimental vessel.
TONNAGE—176 (gross).
DIMENSIONS—105′ (water line) x 22.4′.
SPEED—12 knots.
DRIVE—Diesel; 320 b. h. p.
Notice the larger-than-usual cabin accommodations.

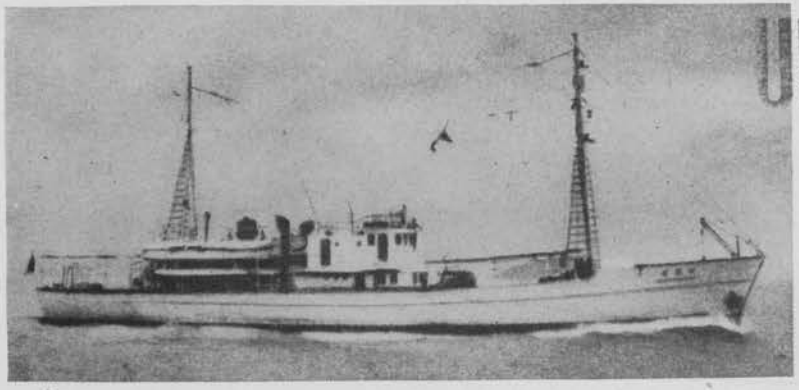
◀ KOSHIZUMI MARU—
Typical of the oldest trawler types.

KOCHI MARU— ▶
A fisheries leader built in 1938.
TONNAGE—200 (gross).
DIMENSIONS—102′ x 22′ 10.8′.
SPEED—10 knots.
DRIVE—Diesel; 430 b. h. p.

◀ SHOHO MARU-
A similar fisheries leader built in 1927.
TONNAGE—176 (gross).
LENGTH—109′ (water line).

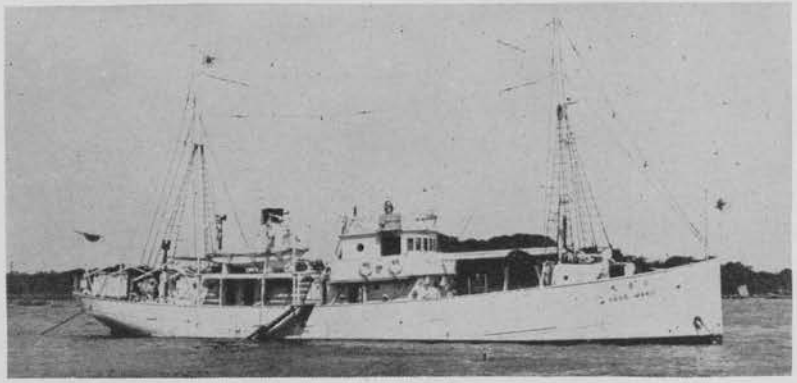
SHIRATORI MARU— ▶
Modern fishing "spotter" with circumferential sponsoned catwalk.
TONNAGE—269 (gross).
DIMENSIONS—120′ x 23.9′ x 10.8′.
SPEED—12 knots.
HP.—450.

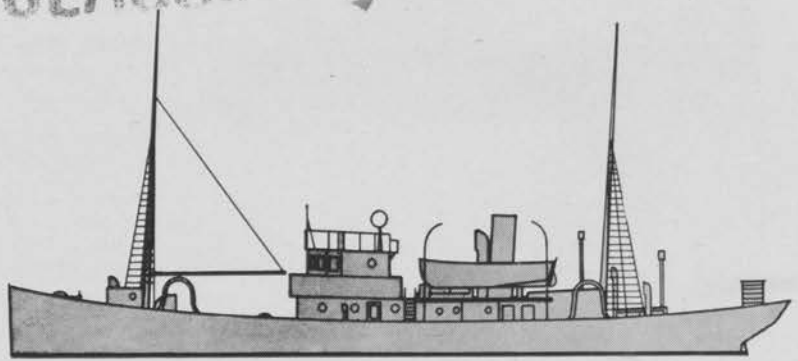


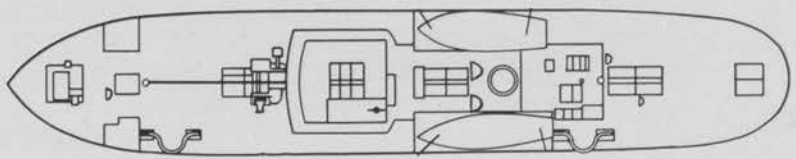


TERUKAZE MARU—A Government-operated Fisheries Guard Ship of 257 gross tons.

SOYO MARU—An "ocean investigating vessel" formerly operated by the Department of Agriculture and Forestry.







SOYO MARU

COMPLETED—1939.
TONNAGE—202 (gross).
DIMENSIONS—112′ x 21.2′ x 12.3′.
SPEED—10 knots.
HP.—202.

FISHING BOATS 30–150 GT

▲ A typical small coastal trawler of 80 to 100 gross tons. Notice that it repeats most of the "large trawler" appearance characteristics.

▲ This bonito boat combines the "small trawler" appearance with some of the "two-masted schooner" features.

◀ Notice the "trawler" lines are repeated even in this smallest (34-ton) fishing launch type.

This category is a catch-all including all fishing vessels smaller than coastal trawlers but larger than the purely local native-built types.

Because of the endless variety of sizes and designs, this section is presented as a cross-sectional coverage, with emphasis on the two most popular large types—the small trawler and the bonito boat.

SMALL COASTAL TRAWLERS are merely miniature versions of the larger deep-sea types, with the same appearance characteristics. They also serve the same individual or group-shipping functions as the larger types, and are also often employed as fish transports.

BONITO BOATS are similar to the trawlers, but are fitted for line rather than net fishing. They are designed to fish independently for bonito or tuna, and to store and transport their catch in refrigerated holds.

MISCELLANEOUS TYPES

This mass of smaller fishing boats includes very small trawlers, drifters, crab catchers, the "lugger" type of line fisherman, and innumerable other small craft engaged in purely localized fishing in an offshore area or around a larger mother ship.

In general, this whole group of miscellaneous fishing types will fall into the following range of characteristics:

TONNAGE—30–150 (gross).
LENGTH—65′ to 100′ (water line).
BEAM—14′ to 20′ (hull).
SPEED—Under 10 knots.
DRIVE—Diesel or steam; auxiliary sail carried.

30–150 GT FISHING BOATS

WARTIME USE

XPC (Subchasers)

This group shares with the larger (150 to 300 gross tons) trawler type the bulk of the XPC functions. Within this group the most apparent conversions have been the larger bonito and seiner boat types, ranging from 90 to 150 gross tons. In most cases, masts and shrouds, and most fishing gear (except that useful in mine sweeping) have been removed, and machine gun positions added.

Some XPC's of this type have mounted a 57 mm. bow gun, up to four machine guns, and four depth charges on the fantail. Many have had a single lifeboat hung on davits forward of the bridge.

XAM (Mine Sweepers)

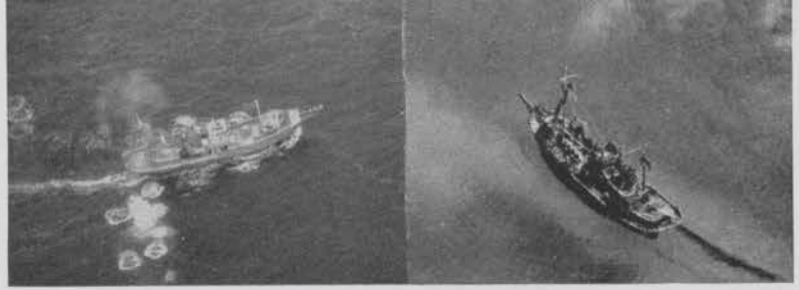
A great many of these craft have been requisitioned for harbor and river mine sweeping, paralleling our own AMc conversions from similar West Coast types.

XPP (Picket Boats)

This local function is almost entirely served by the smaller 30- to 50-ton fishermen, which carry on both the fishing and patrols at the same time. Equipment is usually a single machine gun, and a two-way radio, or visual signaling devices, and in some cases the simple KE hydrophone used on XPC's.

XAF (Storeship)

Only the larger trawler type with refrigerated holds would be useful for this purpose, although very few have actually been reported as such. However, for general cargo carrying, a great many of the 100-ton fishermen have been requisitioned as "luggers," and added to the new wooden shipbuilding program type derived from this same design.



▲ Bonito boats serving as XPC or XPP. Note that masts have been struck, sponson partially removed, and a 57 mm. mount, machine guns, and depth charges added. Ship at right is carrying fuel drums as deck cargo.

Lightly armed small trawlers, typical XAM, XAF conversions.

RECOGNITION

There are three basic recognition groups within this category: (*a*) the small trawlers, (*b*) bonito boats, and (*c*) the miscellaneous smaller types. Each of these groups incorporates something of the basic "trawler" design.

The small trawlers and bonito boats are merely miniature versions of the larger deep-sea types, with minor differences separating the two. These differences are found in the bow (plumb on trawlers, raked with heavy bowsprit on bonitos), the length/beam ratio (bonito fishermen are very broad), and in the use or absence of circumferential deck sponsons (on bonitos only). Furthermore, bonito boats are fitted with the two-masted schooner rig, while trawlers apparently never use sail.

A third group, the drifters or purse seiners, combine features of both these types.

The smaller types can usually be recognized by their single mast (all trawling types have two masts) and wood construction. However, beyond this distinction, the variations and differences between types grow to such an extent that no other generalization can be made. Bridge, superstructure, masts, stack, even hull, follow no basic pattern; in fact some of these elements are often not included.

However, in this miscellaneous group, a distinct "trawler" type, the "lugger" type, and the motor-launch type can be recognized as separate designs. The other types merely combine features of these three designs.

NANBO MARU
Small trawler-type fisheries training vessel.
TONNAGE—123 (gross). DIMENSIONS—90′ x 18.7′ x 9.8′. SPEED—9.6 knots. HP.—200.

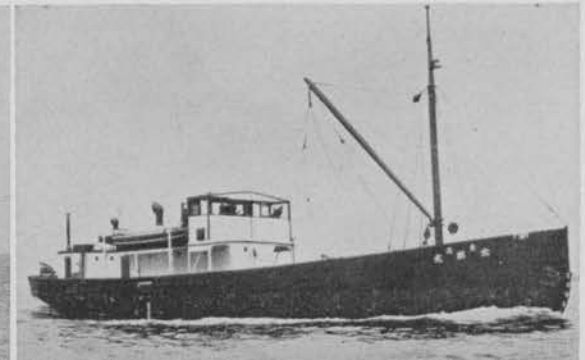
MATSUYAMA MARU
Steel trawler-type mother ship and fish transport.
TONNAGE—110 (est. gross).
LENGTH—100′ (est.).

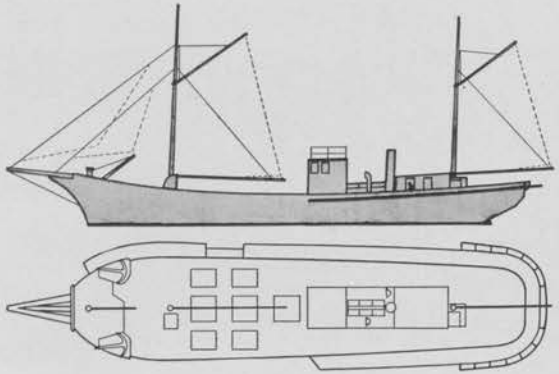
SYONEI MARU
Another fish transport, identified by its characteristic cargo loading booms.
TONNAGE—120 (gross). LENGTH—87′ (water line).

TOYO MARU No. 9
Small combination trawler-fish transport.
TONNAGE—72 (gross).

ROYO MARU
A small trawler type with characteristic stern "horns" for dragnet lines.
TONNAGE—88 (gross).
SPEED—11.5 knots.

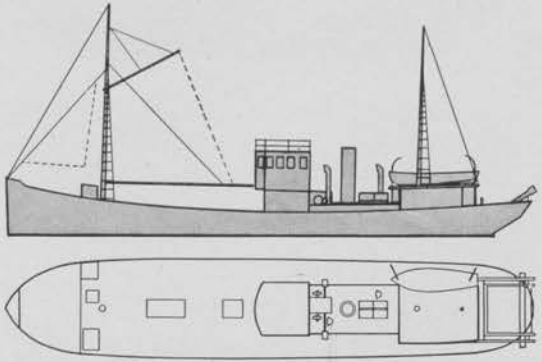
TOWAN TARO MARU
Small modern Diesel-driven fish transport—One of five sister ships carrying 24 to 32 tons of fresh fish.
TONNAGE—73 (gross). DIMENSIONS—80′ x 17′.
SPEED—9 knots.





Typical bonito boat. Notice tapering hull, outboard sponsons, prominent bowsprit, and schooner rig.

Typical small trawler with sail rig for seining. Notice slab-sided hull, plumb bow, rounded bow and stern—all trawler characteristics.

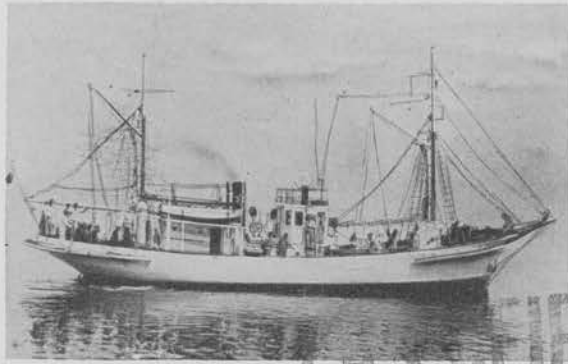


HYUGA MARU
A 70-ton, 71′ bonito boat.

MIYAKO MARU
Bonito type "Deep Sea Training Ship."
A 70-ton Diesel-driven type.

SHOWA MARU No. 2
Same type, with sails rigged.
TONNAGE—110 (gross).
DIMENSIONS—80′ x 19′ x 7′.

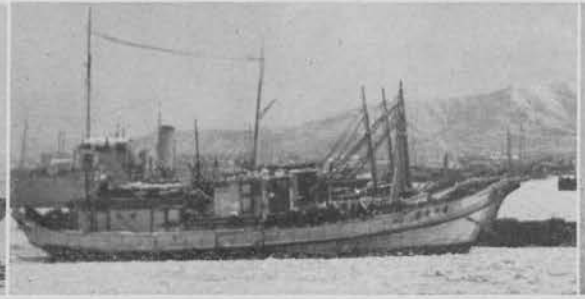
Another small bonito boat.



SMALL FISHING LAUNCHES

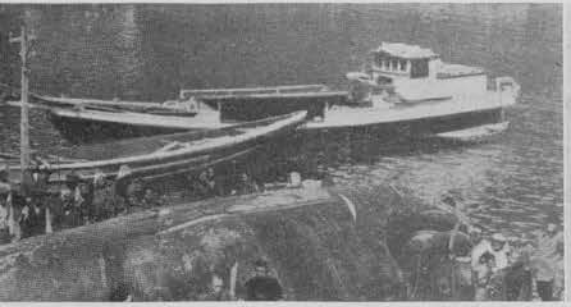
▼ Small 73-ton fish transport—SYONEI MARU No. 2.

▼ Small Chinese trawler.



▼ 40′ native-built fishing launch.

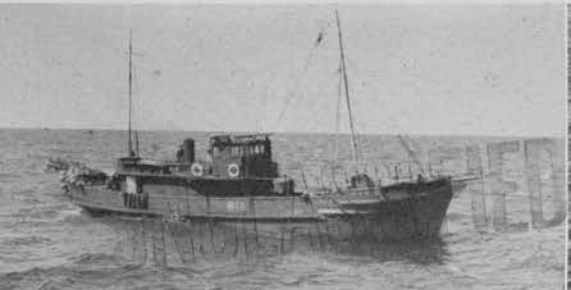
▼ 50′ combination fishing launch and transport.



▼ Typical Japanese local fishing boat; length about 40′.

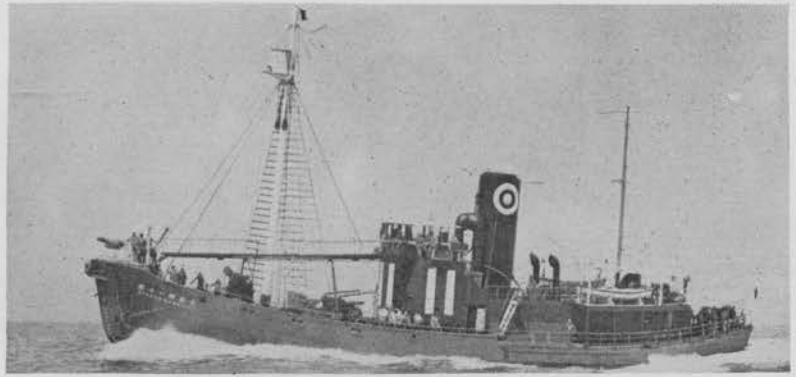
▼ Same type engaged in line fishing for bonito.

▼ 95′ wooden crab catcher and small boat tender.



▼ Typical small tug-type crab catcher.

▼ Crab-catching powered wooden launch.

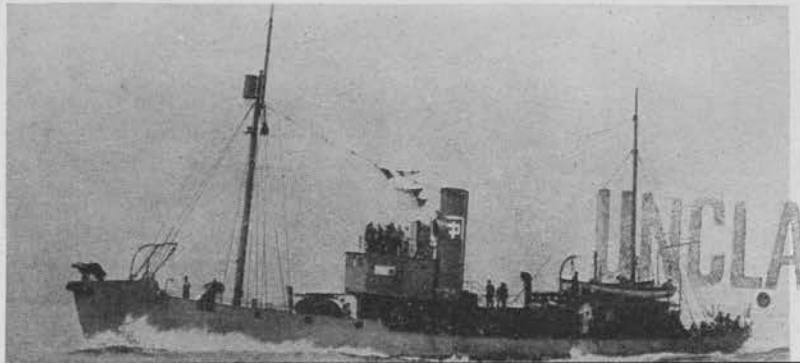


SYONAN MARU No. 11

A Norwegian-type whale killer; now an XPC.
TONNAGE—350 (gross).
DIMENSIONS—133′ (water line) x 27′ x 15′.
SPEED—14 knots (normal).
DRIVE—Steam.
NHP—105.

GANJITSU MARU

Typical of the many older types.
TONNAGE—211 (gross).
LENGTH—122′.
SPEED—10 knots (normal).



Whale killers are specially designed to patrol Arctic areas in search of whales, to harpoon them, and tow them back to the mother ship (which is essentially a floating factory).

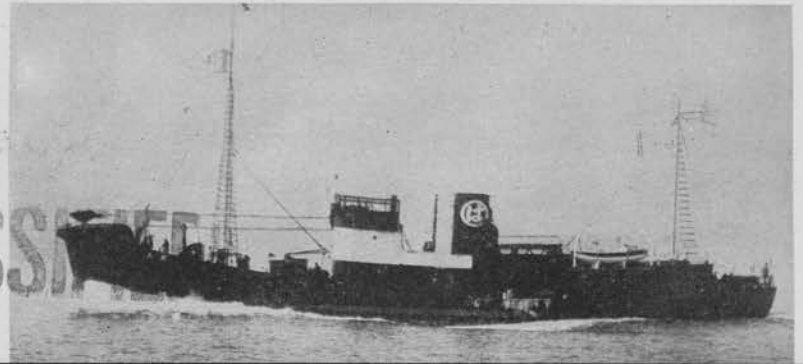
For this duty, the whale killer has developed into a specialized design with great sea-keeping ability and particularly large engine power. Because of this, the normal whale killer can often tow as many as six or more whales at a time.

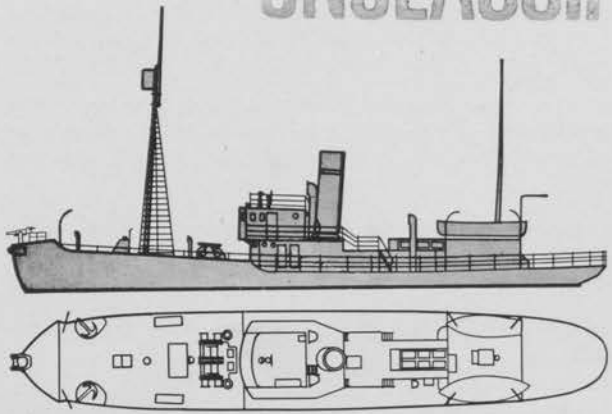
Although whale killers fit into the general tonnage/length curve for all fishing vessels, they form a completely distinct recognition design. In general, they will all fit into these limits:

TONNAGE—100 to 400 (gross).
LENGTH—90′ to 140′.
BEAM—18′ to 27′.
SPEED—9.5 to 14 knots.
DRIVE—Diesel or steam reciprocating.
HP.—76 to 303 (normal).

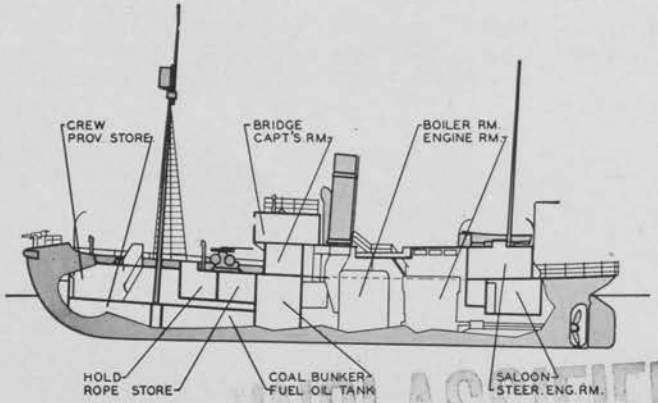
FUMI MARU

One of the large modern types.
TONNAGE—360 (gross).
DIMENSIONS—140′ (water line) x 25′ x 13.1′.
SPEED—14 knots (max.).
DRIVE—Diesel.
NHP—303.

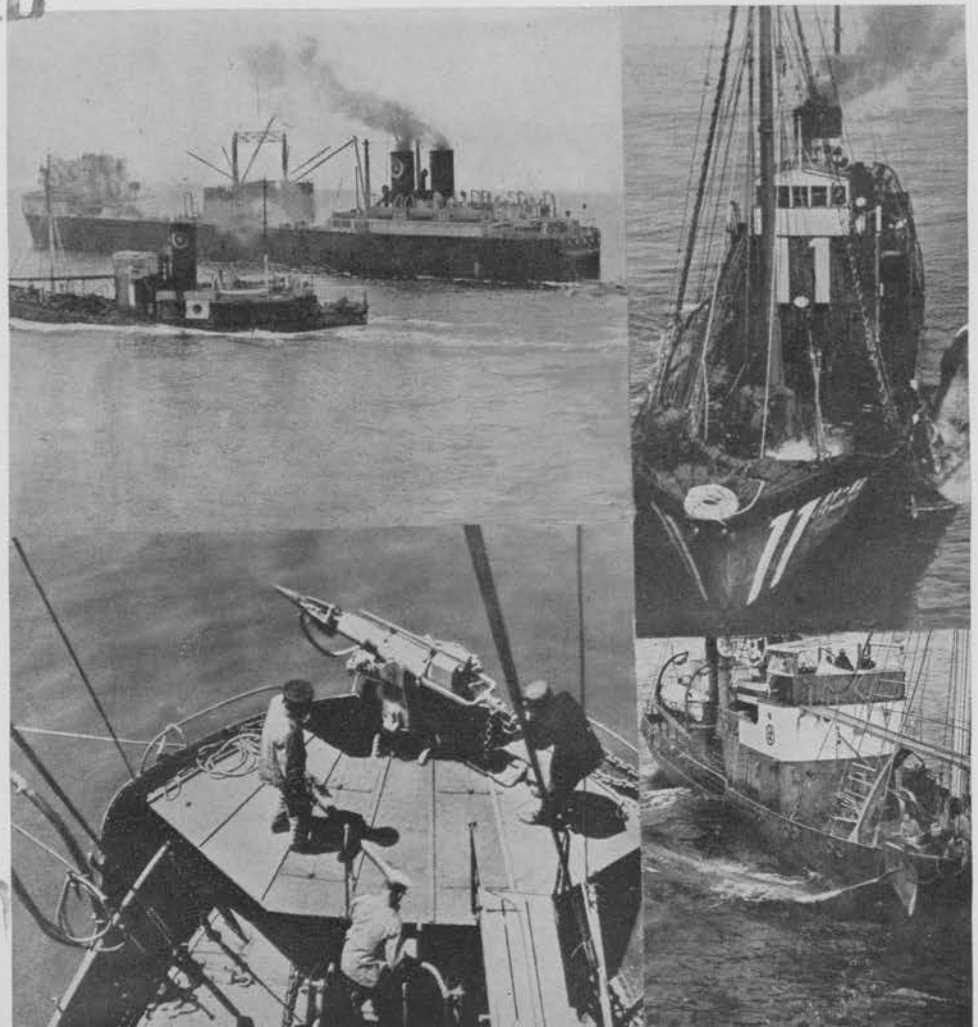


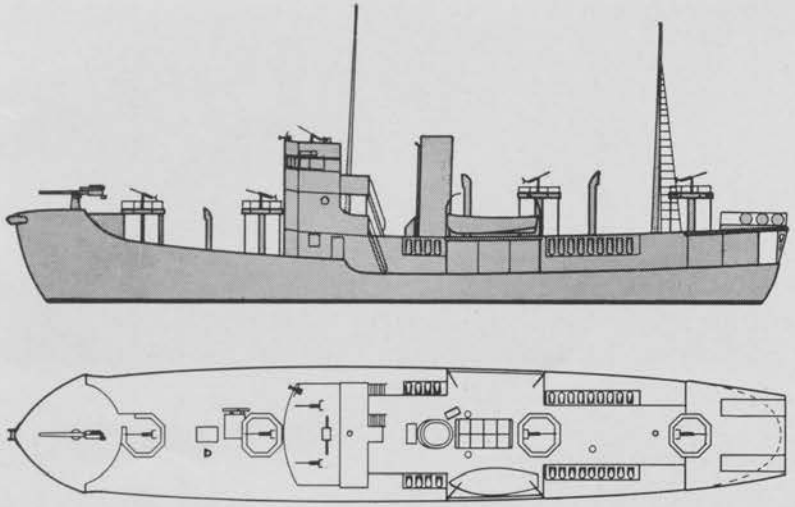


Typical whale-killer design showing large machinery space and minimum cargo hold. This ship is the GANJITSU MARU.



Notice whale factory, harpoon gun, and catwalk.





WARTIME USE

Almost all whale killers that can be spared from essential fishing have been converted to XPC's and XAM's. As such, they've proven extremely valuable ships, since their great endurance, seaworthiness, speed, and towing power are equal or better than most naval vessels of comparable size.

The conversion follows the same general pattern seen on our own YP's and German Vorpostenboote. A typical example of this is shown at left.

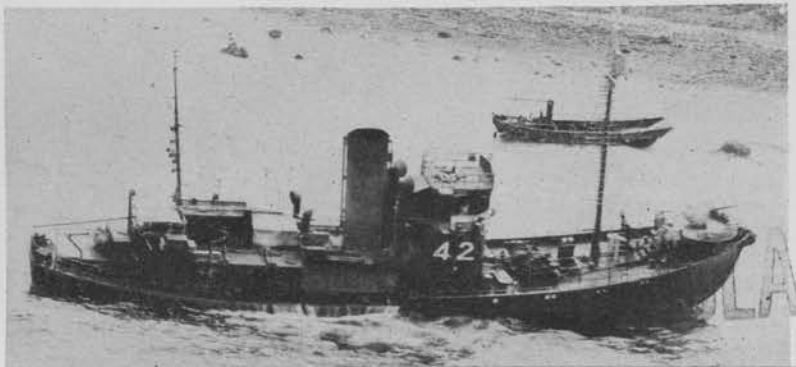
This ship seems to be equipped for AA escort, mine sweeping, and anti-submarine duties. For this purpose, the deckhouse accommodations have been increased to house a crew of 30 to 40 officers and men, foremast moved abaft the bridge, and gun positions, depth-charge racks, and mine-sweeping gear added.

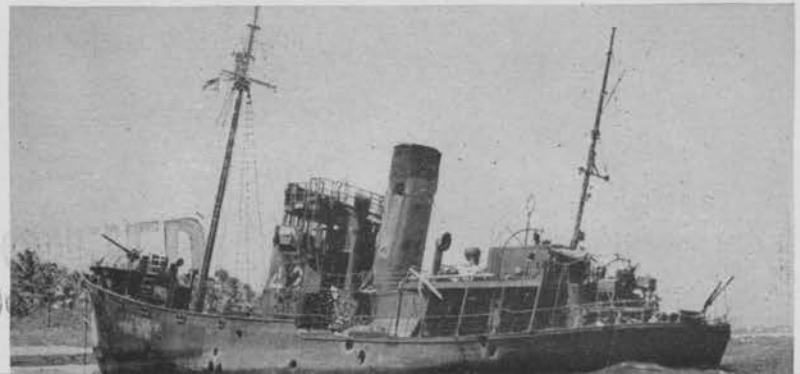
The armament on this ship is probably indicative of the ultimate assigned to all XPC's. It consists of a 3″ on the forecastle and six 7.7-mm. or 13-mm. automatic machine guns. At least 8 depth charges can be ready on the stern launching racks (Y-guns have also been fitted), with a number of reloads stowed below. There are 26 mine-sweeping floats visible on the racks, indicating that this ship was used for both high-speed single-ship or low-speed twin-ship catenary sweeping.

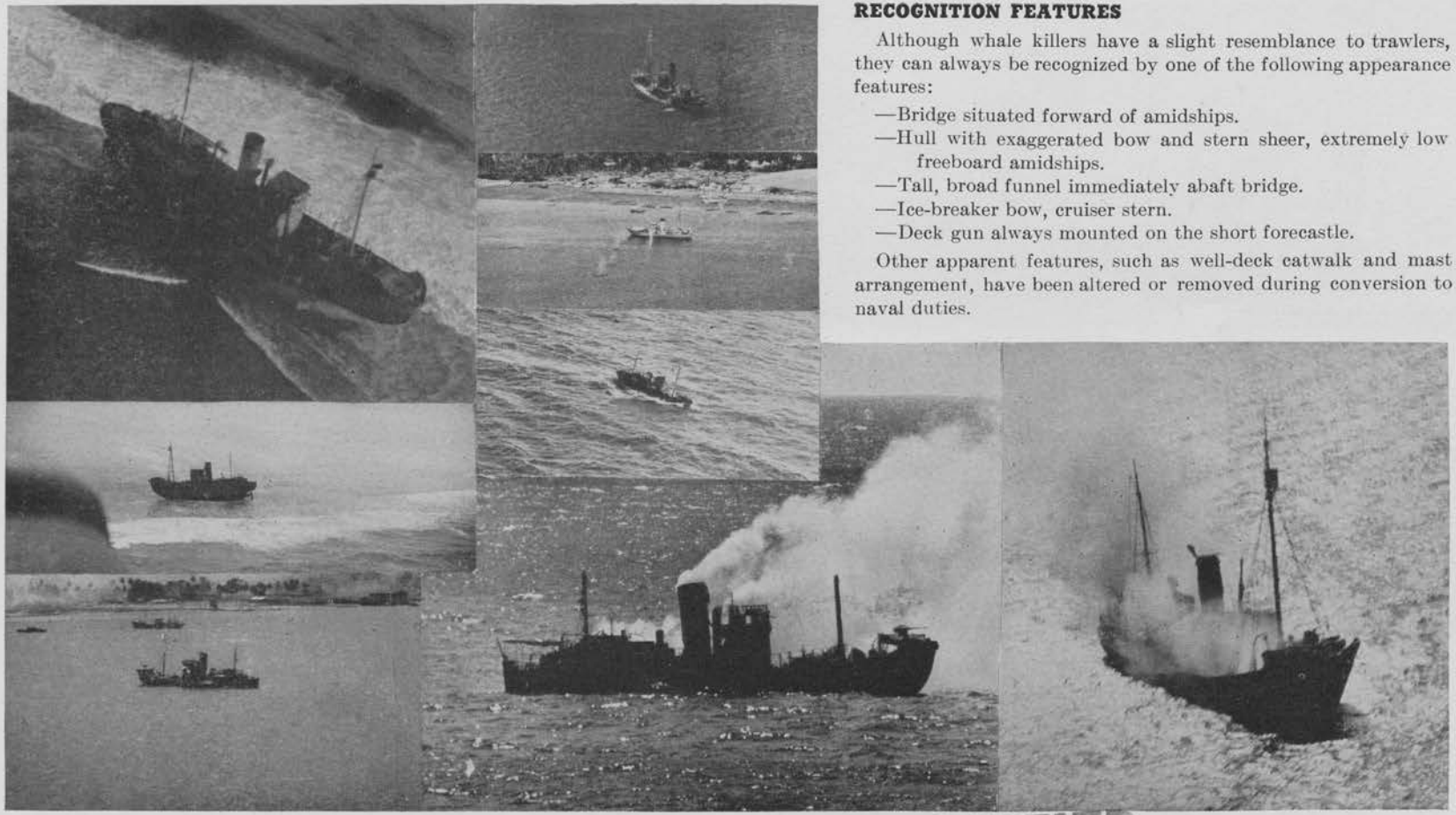
Additional equipment reported carried on this type includes a transmitter/receiver, RDF, hydrophonic gear, the normal visual signaling devices, and degaussing coils.

The two outboard vessels are KYO Class whale killers converted to serve as escort ships during the China campaign. Notice that the only apparent change from commercial appearance was the substitution of 3'' guns for the forecastle harpoon. The ship in the center is a small engines-aft cargo type fitted with a stern ramp for transporting and launching harbor defense nets. Although little is known about these XAN (net tender) conversions, it can be assumed that this ship is typical. A complete list of all known XAN's is included in another section.

One of the SHONAN MARU Class whale killers shelled and beached off Kwajalein. Visible armament is one 3'' and one MG. This vessel was also equipped with searchlight, hydrophone, and radio direction finder gear atop bridge, and depth charge racks had been installed on the stern.







RECOGNITION FEATURES

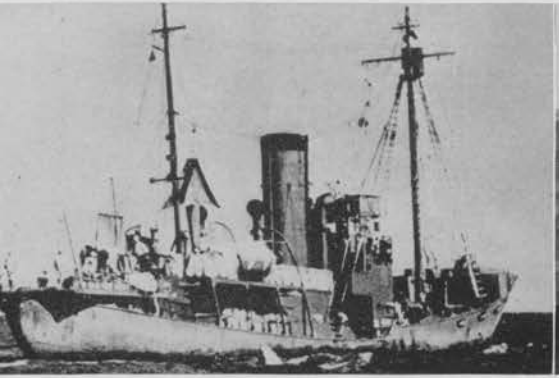
Although whale killers have a slight resemblance to trawlers, they can always be recognized by one of the following appearance features:

—Bridge situated forward of amidships.
—Hull with exaggerated bow and stern sheer, extremely low freeboard amidships.
—Tall, broad funnel immediately abaft bridge.
—Ice-breaker bow, cruiser stern.
—Deck gun always mounted on the short forecastle.

Other apparent features, such as well-deck catwalk and mast arrangement, have been altered or removed during conversion to naval duties.

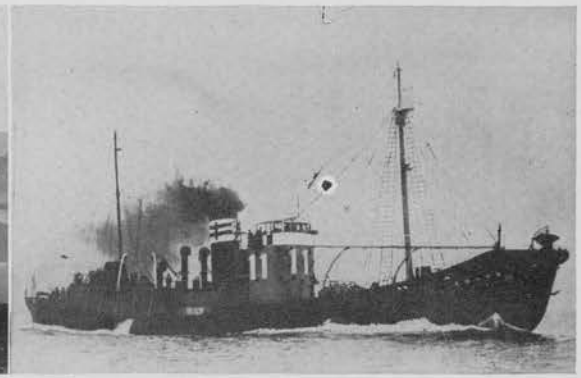
WHALE KILLERS

Ships illustrated below are typical types; for a complete list of all known whale killers, see the Statistical Index.



Converted mine sweeper (XAM), carrying numerous floats and fitted with a fantail depth-charge platform.

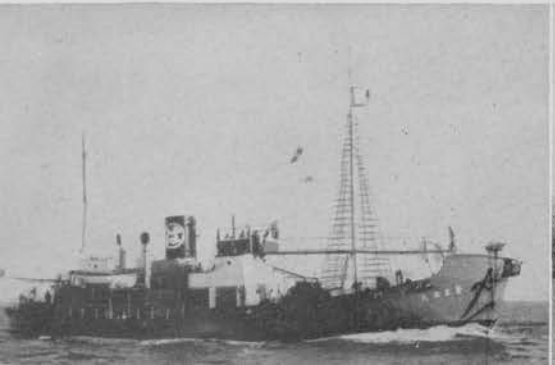
HUMI MARU Class Showing peacetime rig.
TONNAGE—305 (gross).
LENGTH—130′ (water line).

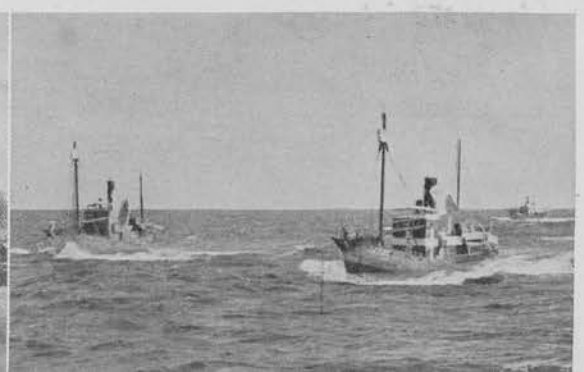


KYO MARU Class
Converted sister ships are shown on preceding pages.
COMPLETED—1938. LENGTH—154′ (water line).
TONNAGE—385 (gross). DRIVE—Diesel.

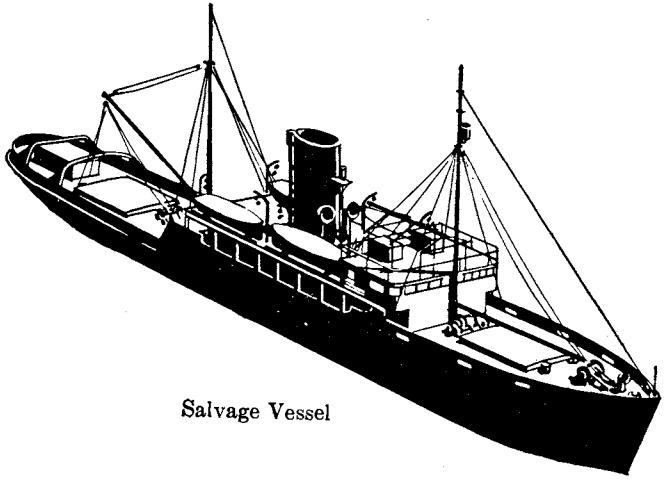
TAMA MARU Class
Typical of the smaller modern type.
TONNAGE—258 to 298 (gross).
DIMENSIONS—122′ (water line) x 22′ x 12′.
SPEED—13 knots. DRIVE—Reciprocating.
HP.—770 to 800.

The older whale killers are usually smaller (90′ to 100′ water line) and slower. They can always be recognized by their tall, thin stack, as shown in the examples below.

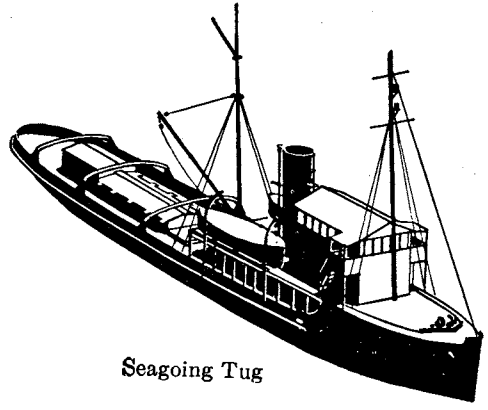




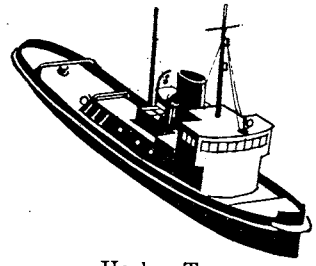
UTILITY VESSELS



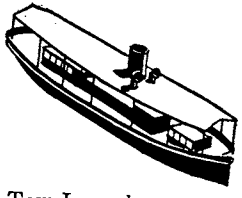
Salvage Vessel



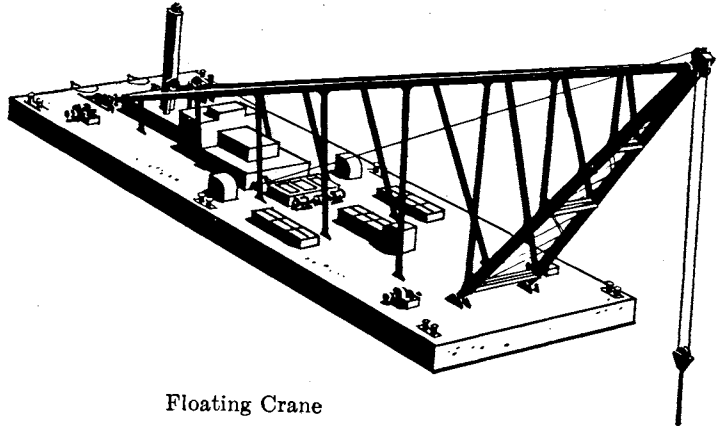
Seagoing Tug



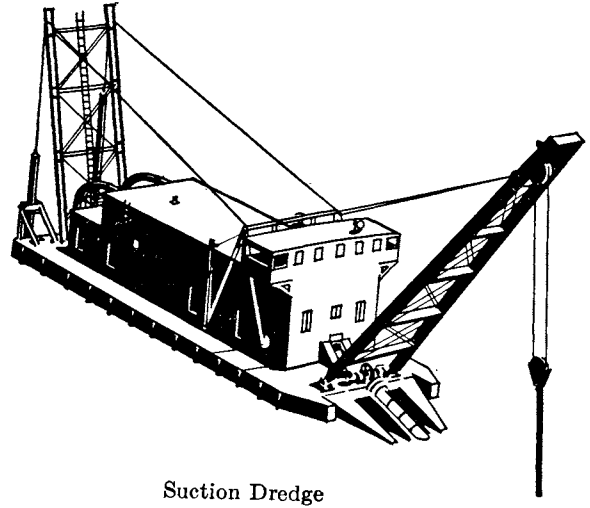
Harbor Tug



Tow Launch



Floating Crane



Suction Dredge

The Japanese marine salvage industry had, in peacetime, the reputation for being the most efficient in the world, gained by a willingness to undertake and execute seemingly impossible salvage operations. This was furthered by the heavy Government subsidies to private enterprise, which enabled the entire industry to build up the finest salvage ships and equipment possible.

NAVAL USE

The most direct employment of these ships is obvious. However, there have been no reports concerning salvage activities beyond the fact that the bulk of these vessels are not in direct naval service. Despite this, it should be remembered that many of the larger modern salvage ships are admirably suited (in everything but speed) to serve as small combat-loaded cargo ships (AKA), tenders, and even as gunboats (XPG).

Most of the naval salvage vessels are comparatively unknown ships and may possibly be commercial units renamed for fleet operation. Among the naval units are several large freighters, which might be used as combination salvage vessel-tender-repair ships. As to armament, it is doubtful whether the majority will be fitted with anything heavier than 13-mm. and 25-mm. machine guns.

Very little is known about Japan's salvage fleet beyond a few of the popularized larger types shown on this and the following page. The other units, which cannot be identified as to appearance, are also included in a list on the next page.

SEIHA MARU

The largest and most modern unit.
COMPLETED—1938.
DIMENSIONS—195′ x 35′ x 16.9′ (max.).
TONNAGE—984 (gross).
SPEED—13 knots.
DRIVE—Reciprocating.
NHP—200.

YUSYO (YUSHO) MARU

COMPLETED—1927.
DIMENSIONS—183′ x 33′.
TONNAGE—807 (gross).
SPEED—14.6 knots (max.).
DRIVE—Reciprocating.
NHP—147.

SALVAGE VESSELS

NASU MARU

COMPLETED—1927.
DIMENSIONS—175′ x 29′ x 12.7′ (max.).
TONNAGE—695 (gross).
SPEED—13 knots (max.).
DRIVE—Reciprocating.
NHP—86.

MIHO (ex TAGONOURA) MARU

COMPLETED—1924.
DIMENSIONS—175′ x 28′ x 14.5′ (max.).
TONNAGE—682 (gross).
SPEED—10 knots.
DRIVE—Reciprocating.
NHP—70.

AKITSU MARU

Built in 1940; possibly as sistership to HOZU MARU.
DIMENSIONS—164′ x 27′.
TONNAGE—610 (gross).

No appearance information is available on the following large types:

HOZU or HOSHIN MARU

Built in 1940.
TONNAGE—613 (gross).
SPEED—11 knots.
FUEL CAPACITY—236 tons.

SHINI MARU

Built in 1899.
TONNAGE—584 (gross).
SPEED—8 knots.
FUEL CAPACITY—97 tons.

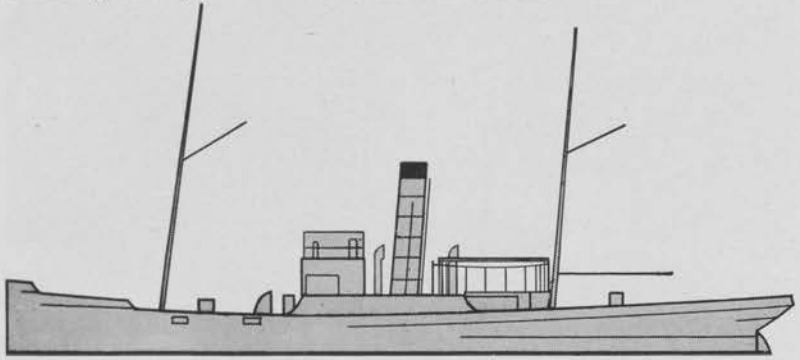
KAMIKAZE MARU No. 7

TONNAGE—208 (gross).

Three others, designated KYUJO, "Rescue or Salvage" vessels, are the KAIGEN MARU (814 gross tons), HAKUZAN MARU (174 gross tons), and the MISHIMA MARU (106 gross tons).

NAVAL VESSELS

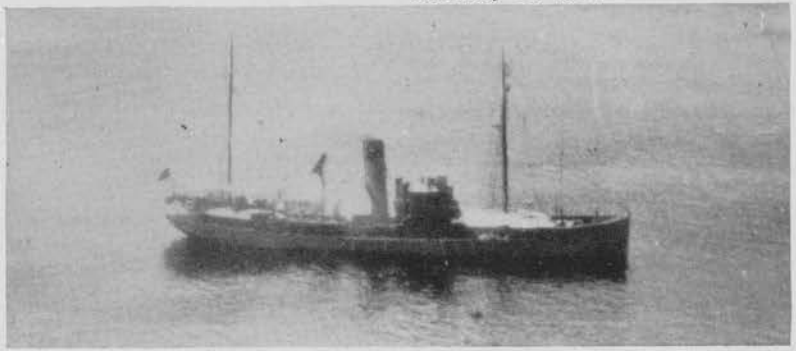
All of these vessels are carried on the regular Navy lists as salvage vessels, in addition to the large converted freighters shown on the following page. One report states that average complement for each of these is 18 officers and men, probably in addition to the merchant crew.



ARS 1—KURIHASHI

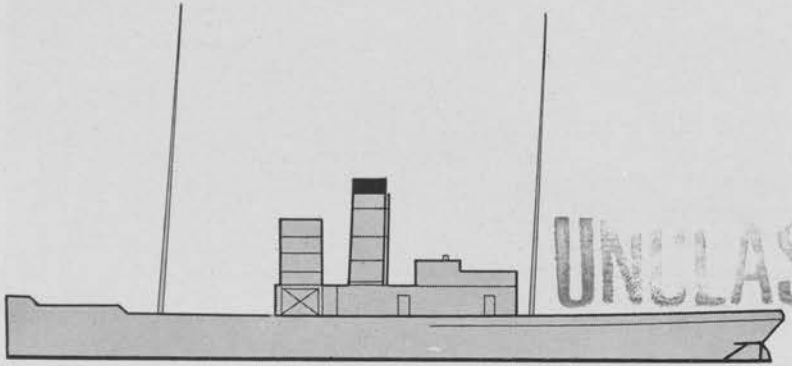
COMPLETED—1905.
DIMENSIONS—182′ (water line) x 30.2′ x 11.7′ (max.).
TONNAGE—1,000 (displ.).
SPEED—12.5 knots (des.).
DRIVE—Reciprocating.
HP.—1,200.

Photo was taken over Rabaul on February 11, 1943.



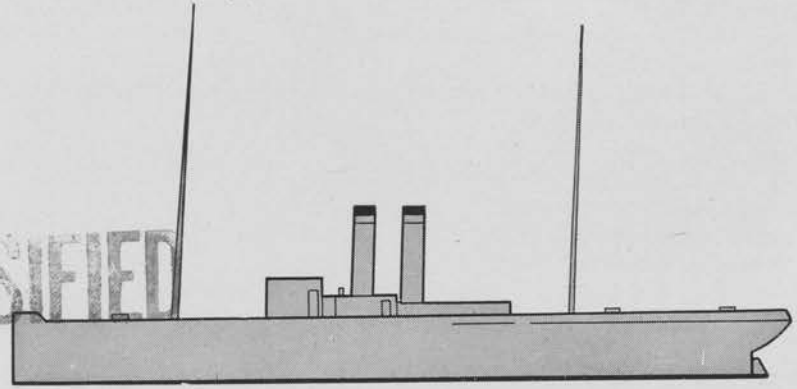
ARS 2—YODOHASHI

DIMENSIONS—159′ (water line) x 27.7′ x 12.5′ (max.).
TONNAGE—800 (displ.). SPEED—11 knots. HP.—720.



ARS 3—SARUHASHI

DIMENSIONS—140′ (water line) x 26.6′ x 10.6′ (max.).
TONNAGE—590 (displ.). SPEED—13.1 knots. HP.—830.



SALVAGE VESSELS

Except for XARS 2, 3, these remaining salvage vessels listed as naval units cannot be identified as to appearance. Notice that most of the conversions are large freighter types.

		Dimensions	*Tonnage*	*Speed*	*Fuel*	*Completed*
ARS 4	SHIRAGANE	133′ (w. l.) x 25.1′ x 8.3′	400 (displ.)	10.5	Coal	
XARS 2	KASAGI MARU	325′ (w. l.) x 46′ x 21′	3,140 (gr.)	15	Coal	1925–28
XARS 3	YAMABIKO MARU	460′ (o. a.) x 59′ x 27′	6,798 (gr.)	17.5	Oil	1937
XARS 4	HAKKAI MARU	309′ (w. l.) x 45′ x 20′	2,921 (gr.)	15	Coal	1940
XARS 5	ESA MARU	No data.				
XARS 6	HARUTA MARU	262′ (w. l.) x 40′ x 16′	1,515 (gr.)	10 (cruis.)	Coal	1925 (ex HALLDOR)
XARS 7	YUSHIO MARU	185.3′ (w. l.) x 33′ x 13.6′	807 (gr.)	13	Coal	1927

SEAGOING TUGS

NAVAL USE

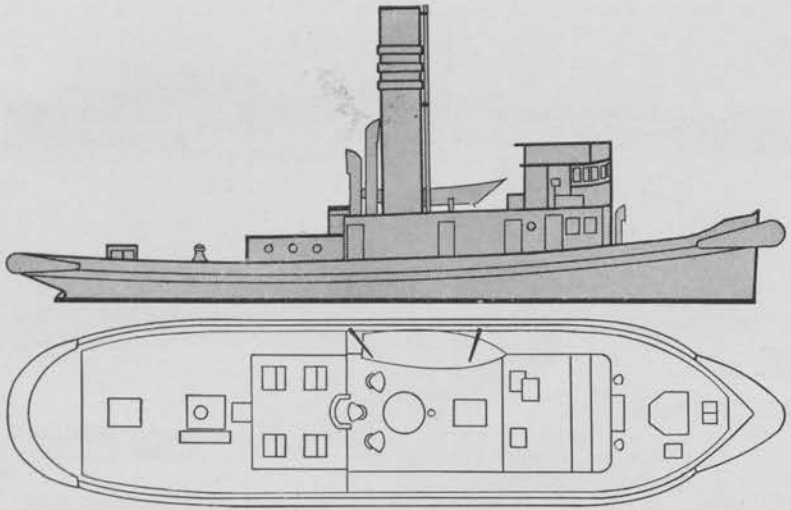
No tug category is included in any of the official Japanese naval lists, indicating either that commercial vessels are requisitioned whenever necessary (as in the case of their transports), or that these vessels serve dual functions, such as mine sweeping, and are listed as such.

In either case, it is known that Japanese tugs have been utilized for net tending, mine sweeping, patrol, and even transport, as indicated by one report describing the use of a seagoing tug to transport 200 troops to an advance sector.

The only naval vessel identified specifically as a tug is the NAGAURA, shown in the photo at right. ▶

COMPLETED—1939.
TONNAGE—800 (displ.).
DIMENSIONS—165′ x 27′ x 10′.
SPEED—10 knots (max.).
DRIVE—Reciprocating.
HP.—1,000 (approx.).
CREW—57.
ARMAMENT—1 twin, 1 single 13 mm.

SEAGOING TUGS



The already large fleet of Japanese seagoing tugs was greatly increased by the seizure of most of the Allied Far-Eastern utility vessels. For this reason some of these vessels, known to be in Japanese hands, are included in the typical, cross-sectional coverage presented in this section. The Japanese themselves classify their tugs into the following functional categories: EISEN (tugboats), EIRYO (tug, "travel"), EIKA (tug, "cargo"), EIKO (tug, "alternate"), and EISAI (tug, "ice breaker"), which gives an indication of their employment but not their characteristics, since no differences in size or capabilities seem to follow with this classification.

However, unless some of the above types are of a completely different design, all Japanese tugs will fall into the following range of characteristics:

TONNAGE—Average, 100 to 230 (gross); maximum, 450 (gross).

LENGTH—Average, 75′ to 110′; maximum, 150′.

SPEED—9 to 11 knots (average maximum).

DRIVE—Usually reciprocating; newer may have Diesels.

SEAGOING TUGS

This group includes all tugs smaller than salvage vessels and used primarily in deep-sea duties. Only a few exceptions exceed our ATA's in size and performance.

SUWA MARU, SHIRATAKA MARU—

Typical of the smallest seagoing type.

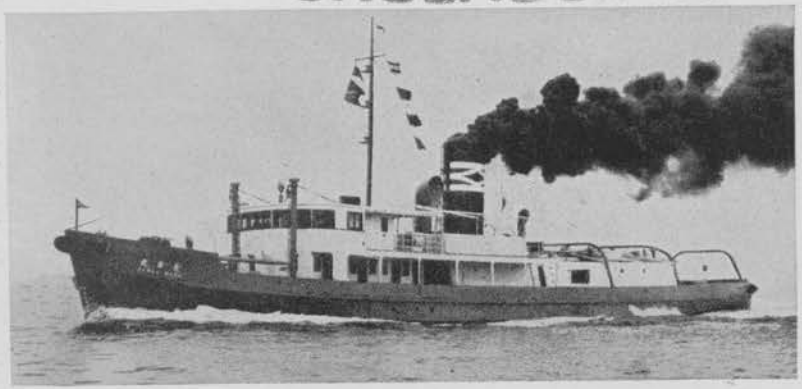
COMPLETED—1923.

DIMENSIONS—96′ (o. a.) x 22′.

TONNAGE—165 (gross).

DRIVE—Reciprocating.

NHP—72.



CHOBO MARU

A modern tug type of 150 gross tons which was built for Yangtze River service. Paired kingposts, extended deckhouse, and wooden hull are unusual features for tugs of this size.

ST. SAMPSON

One of a class of British commercial tugs seized by the Japanese at Shanghai. This ship is 450 gross tons and is 135′ over all. The seagoing tug lines of this ship are obvious—high forecastle, short superstructure, and long, clear deck aft.

KRAUS

One of the N. E. I. commercial tugs seized by the Japs. This ship is typical in characteristics and appearance for the many smaller types of tugs approximately 100′ in length. Dimensions are 112′ x 25′; tonnage, 290 (gross).

YIN PING

Chinese tug built in 1914. Dimensions are 105′ x 22′, tonnage, 191 (gross). This ship is typical of the older tug types, with a small superstructure located farther aft than on the modern types.

HARBOR TUGS

Harbor tugs cover the entire range of sizes from the seagoing type down to the small motor tow launch. In design, they are essentially reduced versions of the seagoing tug with decreased engine capacity and less seaworthiness. In function they perform multiple duties, including towing, serving as short-run transports or cargo carriers, fire protection, lighthouse and buoy tending, pilot boats, etc. The Japanese terms of "tugboat," "tug, travel," and "tug, cargo," undoubtedly apply to this category.

As naval vessels they could perform little more than their normal duties, with the additional function of harbor or river mine sweeping and net tending. Typical examples of harbor types are shown below and on the following pages.

SHINRYU and NANSHIN MARU

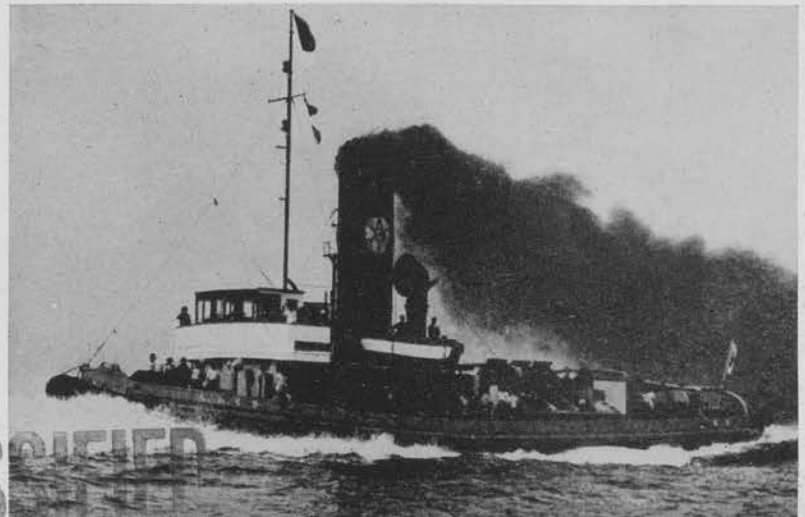
These sister ships were considered the "most powerful" tugs in the Far East at the time they were built (1927). Although customs tugs, they are prototypes of all the later large steel harbor tugs.

DIMENSIONS—91′ x 26′ x 9.7′ (max.).
TONNAGE—227 (gross).
SPEED—11.4 knots.
DRIVE—2 Diesels; SHP, 2,570.

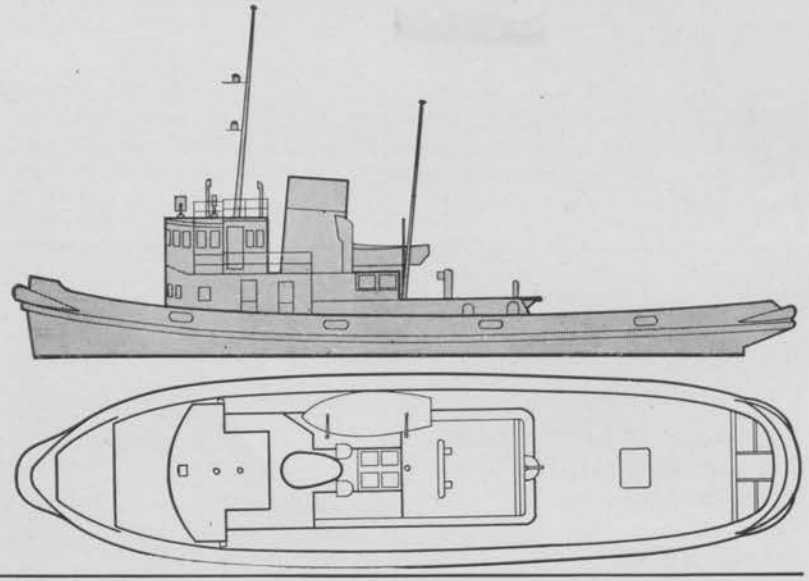
SAKURA MARU

A coal-fired tug built in 1939. Notice the difference in tonnage between this and the SHINRYU, although size is equal.

DIMENSIONS—90′ x 22′.
TONNAGE—162 (gross).
PROPULSION—Reciprocating.



HARBOR TUGS



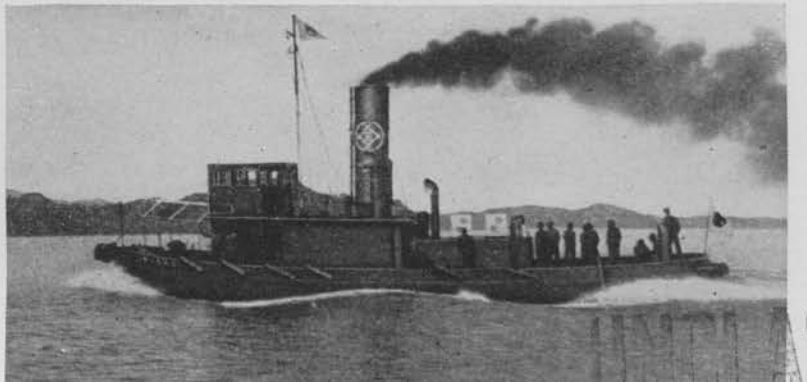
SUMIYOSI MARU

TONNAGE—152 (gross). DIMENSIONS—88′ x 23′.

NUNOBIKI MARU No. 2

Illustrates the medium-sized steel harbor tug. Notice that in basic appearance it still resembles the large oceangoing type.

DIMENSIONS—80′ x 26′.
TONNAGE—119 (gross).
DRIVE—Reciprocating.

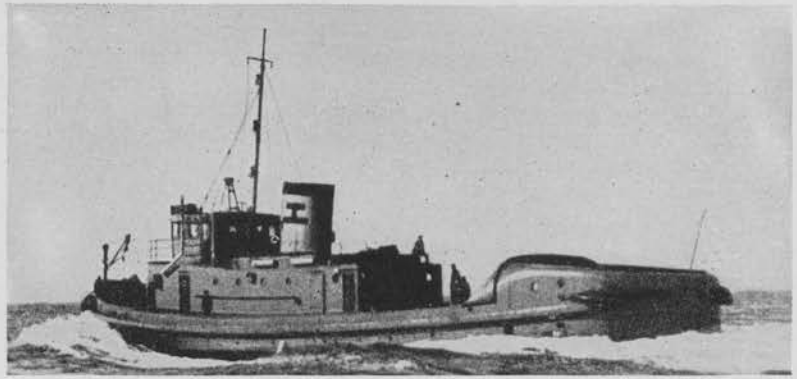


ISOKO MARU

A modern wooden-hull tug; fairly representative of the smallest type. Tugs below this size are grouped under Motor Tow Launches.

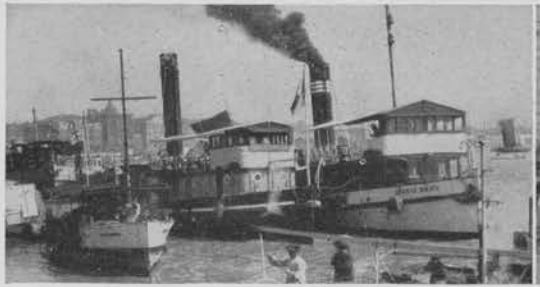
LENGTH—70′.
TONNAGE—50 (gross).
DRIVE—Diesel; 150 hp.

Three ex-British tugs ranging from 250 to 165 gross tons. Notice that appearance remains essentially the same in these modern types.



A modern 86′ tug built for the Japanese Government. This vessel incorporates the Voth-Schneider propeller drive.

Most of the older harbor tugs seen in Far-Eastern ports will resemble these ships. Notice that although primarily towboats, they are also fitted as small passenger steamers.



MOTOR LAUNCHES

This category includes all powered harbor vessels smaller than harbor tugs, regardless of type.

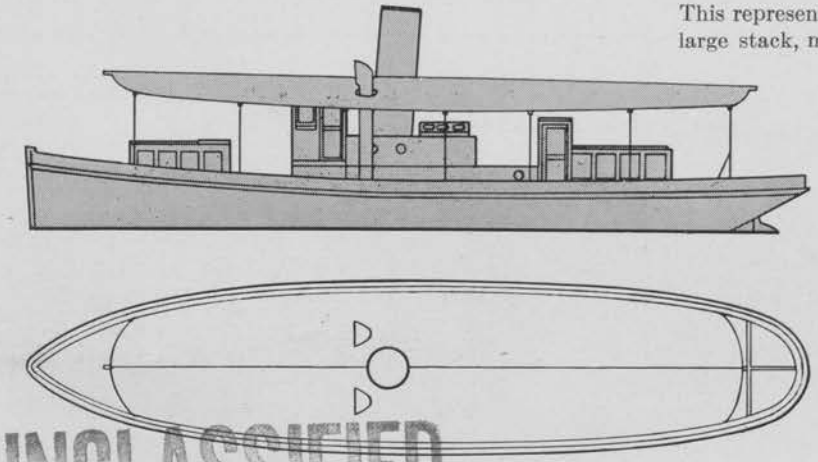
It includes the thousands of small vessels, typical the world over, which can best be classified as water-going taxis or trucks. They are used as pilot boats, lighthouse and buoy tenders, company launches, customs and harbor protection boats, small excursion steamers, ferries, towboats, and almost every other commercial function in a port. Most of them will fit into the following range of characteristics:

DIMENSIONS—30′ to 80′ (o. a.).
TONNAGE—25 plus (gross).
CONSTRUCTION—Wood or steel.
SPEED—Under 8 knots.
PROPULSION—Usually reciprocating engines, although smaller types may be Diesel- or gasoline-driven.
CREW—2 to 6.

In general, these craft resemble the small harbor tugs, although they usually have a smaller superstructure located amidships. Since a good many are Diesel- or gasoline-powered, some do not have stacks. Almost all have no masts.

NAVAL USE

Their primary use would be in base and yard duties, paralleling their commercial functions. However, they might be used as net and controlled-mine tenders, harbor mine sweepers, air-sea rescue craft, and as river transports.

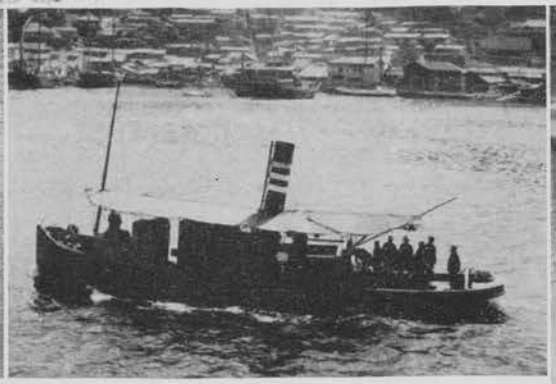


This representative tow launch is 50′ long and 25 gross tons. Notice the simple curved hull, large stack, miscellaneous deck structure, and awnings spread over almost the entire length.

Notice the similarity in design between the tow launches and the river steamer (background). ▲

▼ The tug family, from 110-ton harbor type to 8-ton motor launch. ▼

A typical locally built, gas-powered combination house-boat-work launch, used to tow junks, barges, etc. ▼



▲ Pilot boats comprise an important group in the Motor Launch category. They range from the small 45′ type to larger tug-like craft. All are equipped for towing.

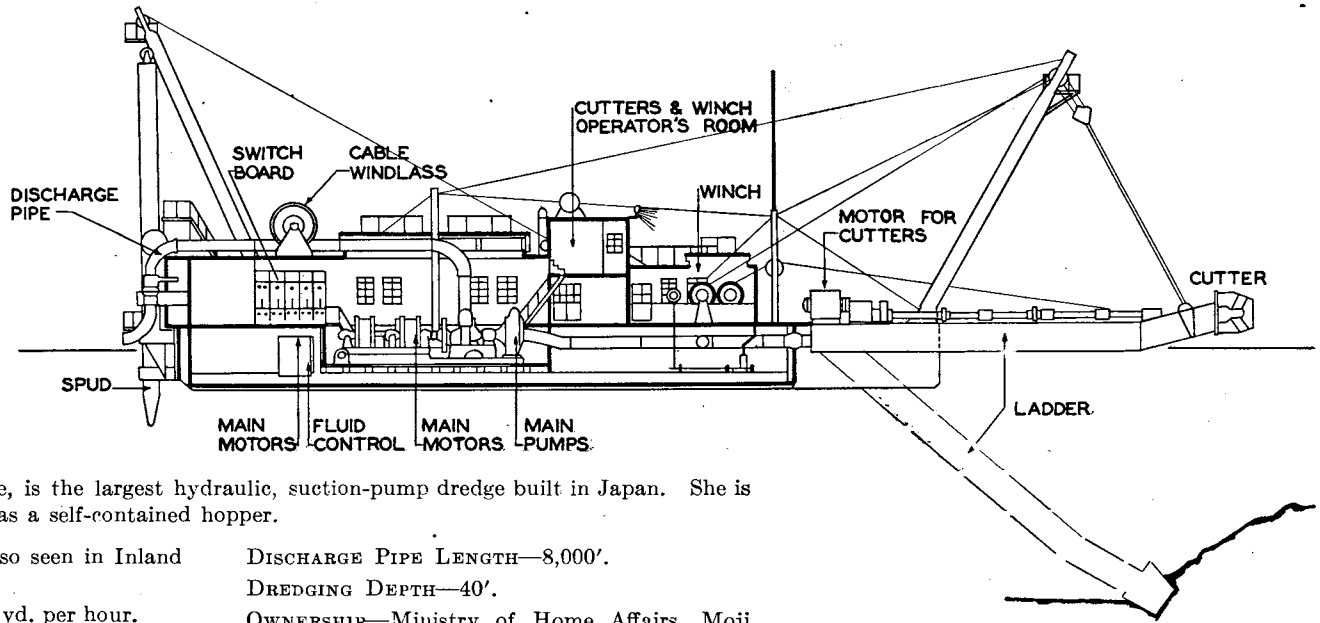
The small tugs included in this group may vary between the 25′ and the 65′ types illustrated. Their stubby appearance and heavy construction still distinguish them as tugs. ▶

At right are typical tow launches as seen from the air. Note the characteristic tall stack and low, extended deckhouse.

The following types of powered small harbor craft are covered elsewhere in this manual—speedboats, under Landing Craft; powered barges, under Barges; small fishermen, under Fishing Vessels.

These specialized utility vessels are included in this manual for photo-interpretation purposes, since all types of dredges, cranes, and other miscellaneous harbor navigation craft have been seen in increasing numbers as the war moves closer to Japan.

The most conspicuous of these is the dredge, whose function is to remove subaqueous earth formation in order that the turning, anchoring, or approaching channels in a harbor can be kept clear. The "dredge" is classified as follows—grapple bucket, dipper bucket, ladder bucket, and suction or pump hydraulic. The bucket dredges either carry their spoil aboard in self-contained hoppers or deposit it onto hopper barges, while the hydraulic dredge usually discharges her spoil via floating discharge pipes. This spoil is often used to supply airfields under construction with earth fill. Another function for which a dredge may be used is to raise sunken ships. A few of the self-propelled dredges are seaworthy.



The UBE–GO, shown above, is the largest hydraulic, suction-pump dredge built in Japan. She is self-propelled, seagoing, and has a self-contained hopper.

AREA—Japan, Ube Harbor; also seen in Inland Sea.

DREDGING CAPACITY—342 cu. yd. per hour.

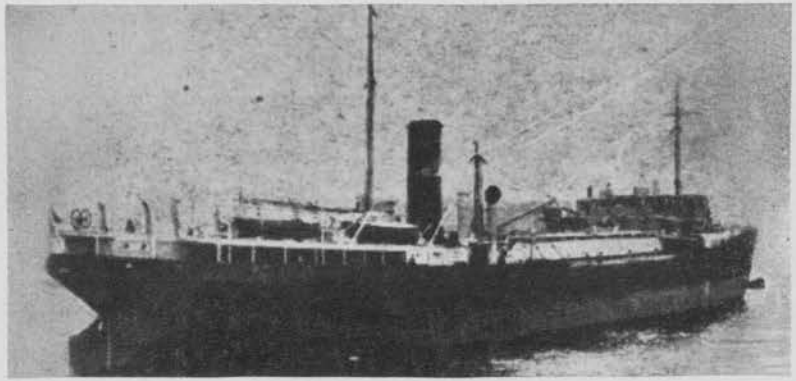
LENGTH—128′.

BEAM—38′.

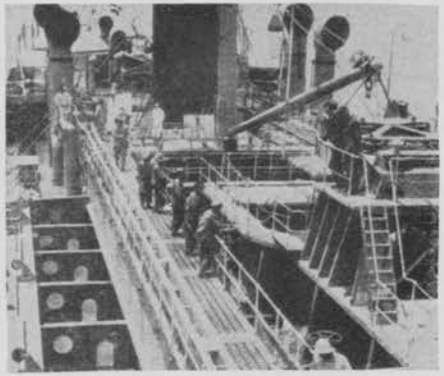
DISCHARGE PIPE LENGTH—8,000′.

DREDGING DEPTH—40′.

OWNERSHIP—Ministry of Home Affairs, Moji Office.



CHIEN SHE is a suction drag pump, self-propelled, seagoing dredge built for servicing the Yangtze River. Since Japanese seizure, this ship may have been converted to cargo carrying, as the large continuous hold is advantageous for bulk military cargoes. As a dredge, there were two means of discharging mud—the bottom may be opened and the silt dropped, or it may be flushed out from the sides. A mile-long cut would yield 4,000 tons of mud and water.



CARGO CAPACITY—4,000 tons mud, 350 tons coal, 150 tons fresh water.

OUTPUT—30,000 tons per 10 hours, 25,000 cu. yd. daily. Capable of shifting 5,000,000 tons of silt annually.

TONNAGE—4,699 (gross).

LENGTH—360′ (o. a.).

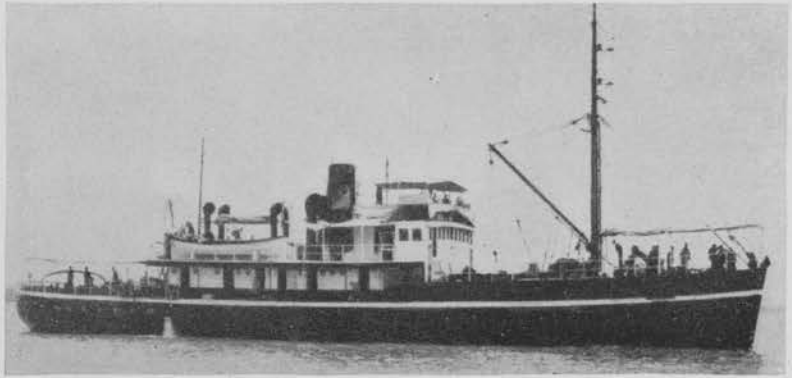
BEAM—60′.

DRAFT—18′ (loaded).

SPEED—10¼ knots (normal cruising).

ENGINES—Reciprocating.

NHP—748.



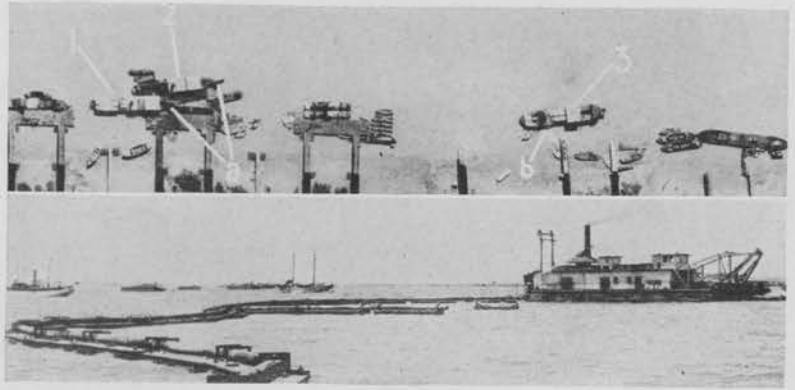
◀ **LI LIANG** was the tender for CHIEN SHE (above); is now probably used as cargo transport.

LENGTH—150′ (o. a.).

BEAM—30′.

DRAFT—10′ (loaded).

ENGINES—Reciprocating.



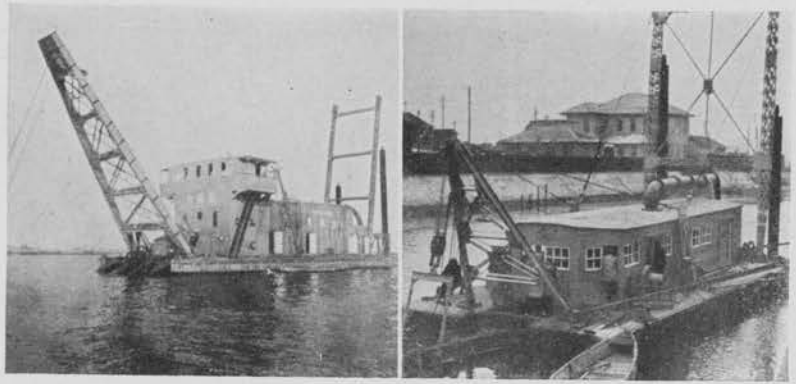
◀ (1) CAMPBELL, (2) OSWALD, and (3) SAMUELSON, hydraulic, suction-pump dredges, were mistaken for salvage vessels when first photographed in sorties over Rangoon. (*a*) Indicates cranes for adjusting the suction pipes, (*b*) indicates spoil being discharged from port side. Only SAMUELSON is equipped with self-contained hopper and pipe line. CAMPBELL, OSWALD, and sister ship LEES are nonhopper types and discharge spoil over the side. All are 205′ to 213′ (o. a.).

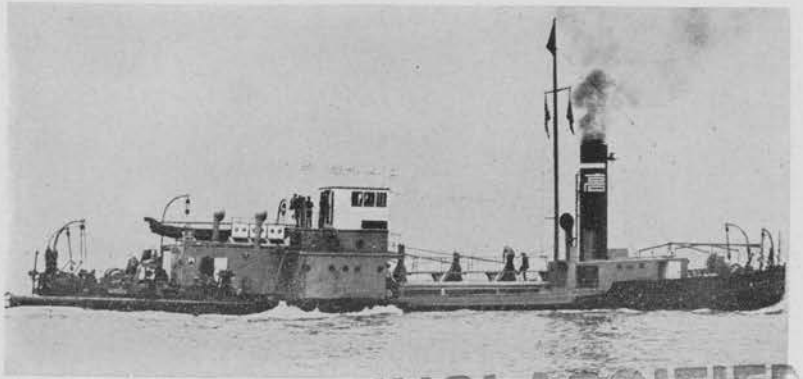
◀ Surface view of a hydraulic, suction-pump dredge. Notice the floating discharge pipe which carries the spoil ashore.

▼ **TAISHI MARU** is a 750-hp. electric, hydraulic, suction-pump dredge. Teeth of the cutter are in the stern view. Spuds for anchoring can be seen at the bow of the **SHOHATSU MARU,** a hydraulic, suction-pump dredge.

▼ **SAIKO MARU,** a hydraulic, suction-pump, self-propelled, self-contained hopper dredge which resembles a cargo ship except for the location of the stack (forward of amidships).

DREDGING CAPACITY—200 tons daily.	LENGTH—131′.
DREDGING DEPTH—18′.	BEAM—26′.
TONNAGE—280 (gross).	SPEED—7.2 knots (cruising).





KYOSHO MARU is a ladder-bucket, self-propelled dredge used at the Shimonoseki Engineering Station, Japan.

DREDGING CAPACITY—600 cu. meters hourly.

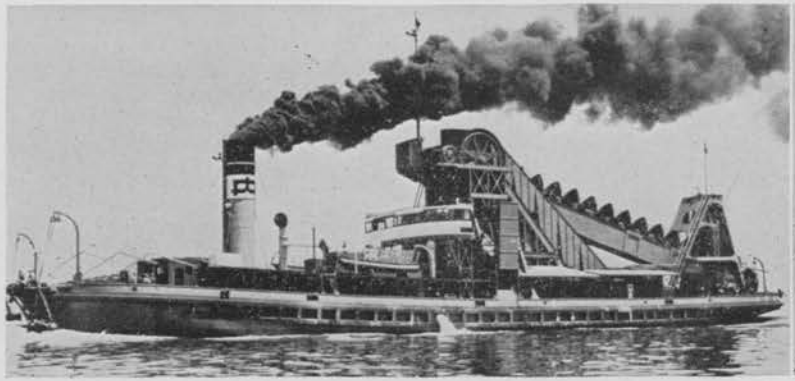
DREDGING DEPTH—39′.

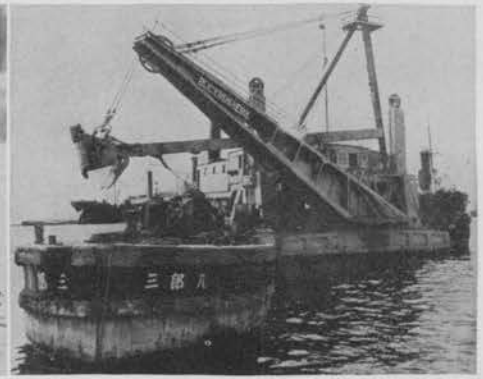
TONNAGE—1,000 (gross).

LENGTH—210′.

BEAM—42.′

SPEED—10 knots (normal cruising).





GOROTA MARU, a typical dipper-bucket dredge, "digs" like the familiar steam ▲ shovel. Note the scow receiving her discharged spoil.
SHOVEL CAPACITY—4½ cu. yds.

British dipper-bucket dredge operating in Shanghai, China, 1941, is shown depositing sludge on shore. ▼

SHUNKAI MARU No. 2, No. 3 are ladder-bucket dredges.

DREDGING CAPACITY—360 cu. meters hourly.

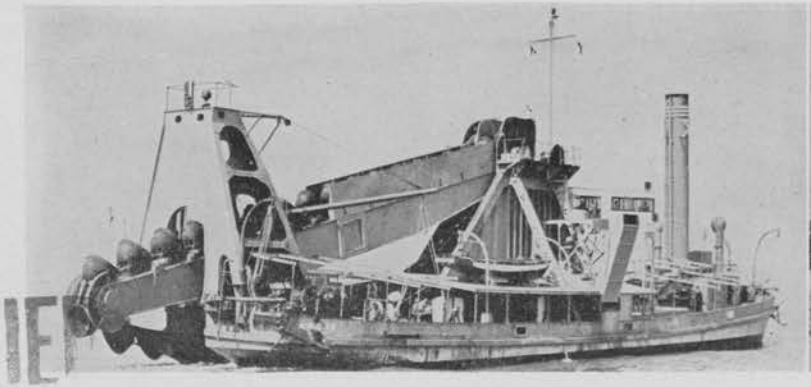
DREDGING DEPTH—40′.

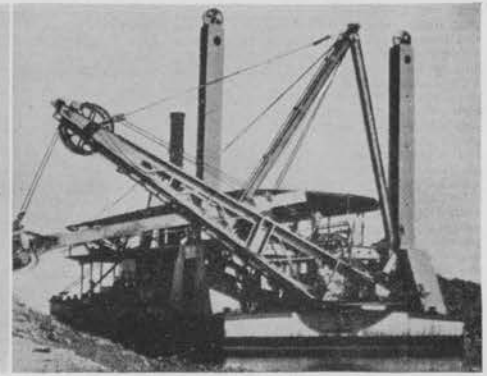
TONNAGE—730 (gross).

LENGTH—172′.

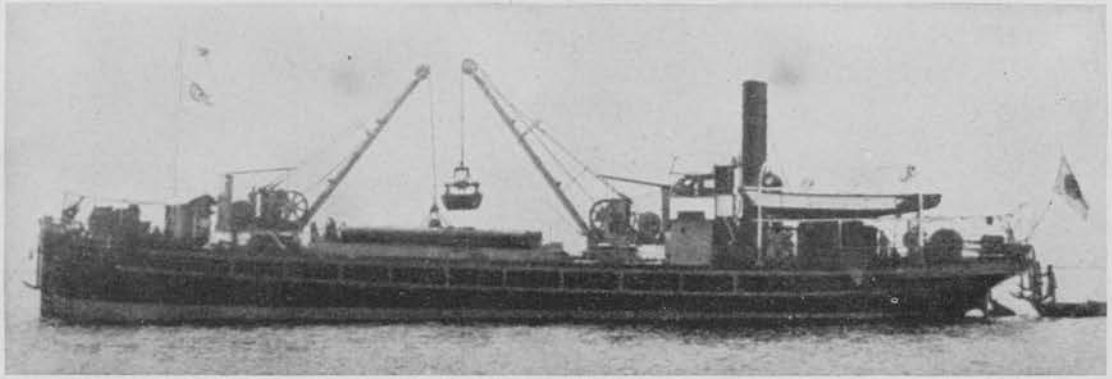
BEAM—36′.

SPEED—8.2 knots (max.).



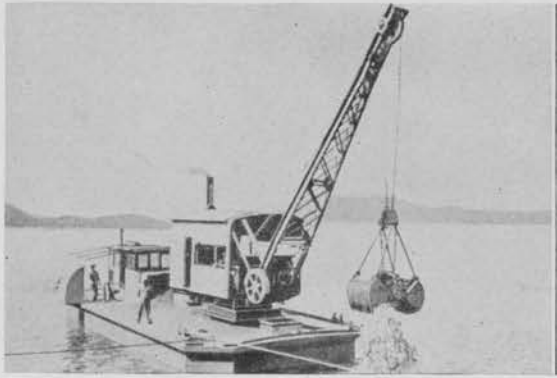


DREDGES

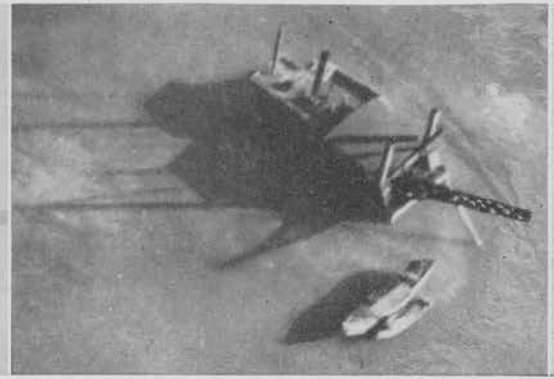


OWADA MARU is a self-propelled, self-contained hopper, and probably a seagoing, grapple-bucket dredge.

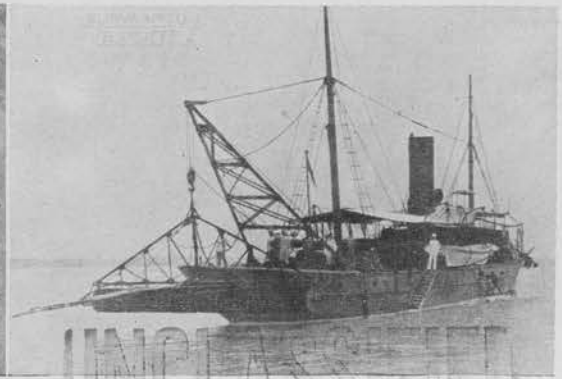
This grapple-bucket dredge is a derrick mounted on a float and swings a grab bucket. Her other functions are to operate the bucket, control the position and local movement of the dredge itself, and to handle the scows. ▼



Reconnaissance photograph of a dipper-bucket dredge at work off the coast of Saipan, 15 June 1944. ▼



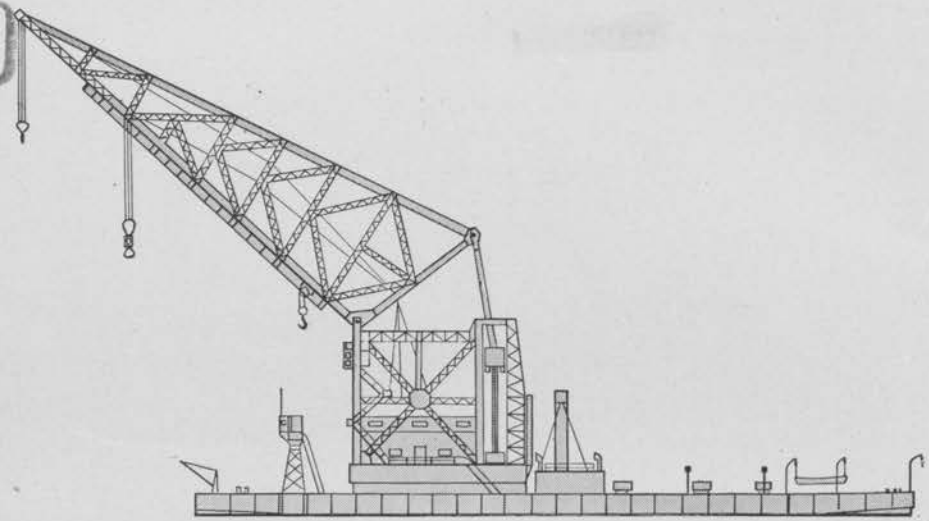
Mud plows apparently are used to open channels of navigation by means of agitating it into suspension. This N. E. I. plow cuts channels about 16′ wide. ▼



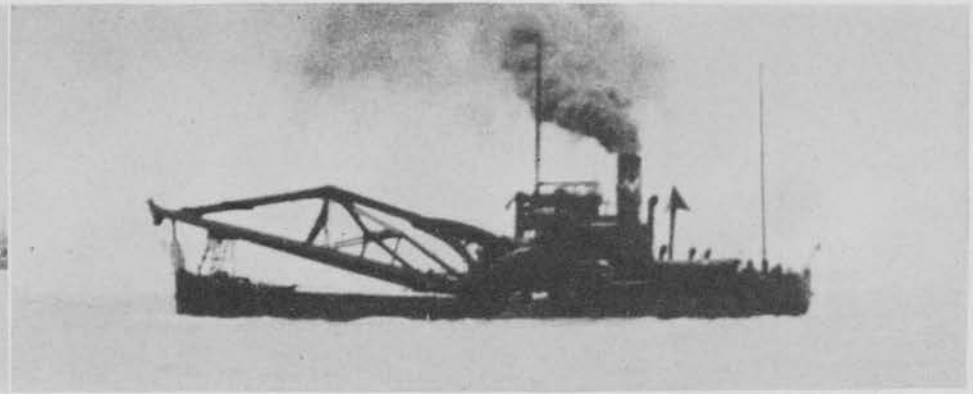
FLOATING CRANES

For salvage operations, Japan has built a variety of floating crane types varying from the ship-borne unit to the locally constructed wood pile driver. Only a cross-sectional coverage of these types is illustrated here. The most common type seen in coastal and inshore waters is the dumb or powered barge fitted with anything from a crude native-built shearlegs or tripod mast to a large slewing type crane.

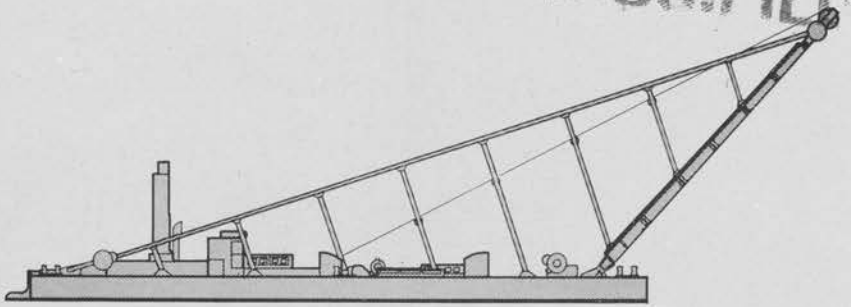
This twin-funnel, self-propelled type is one of the largest floating cranes ever built. Over-all dimensions of the steel portion are 270′ x 91′ x 10′; the crane is 60′ high to the hinge, 240′ over all with jib raised. Two 50-ton and one 350-ton blocks are fitted.



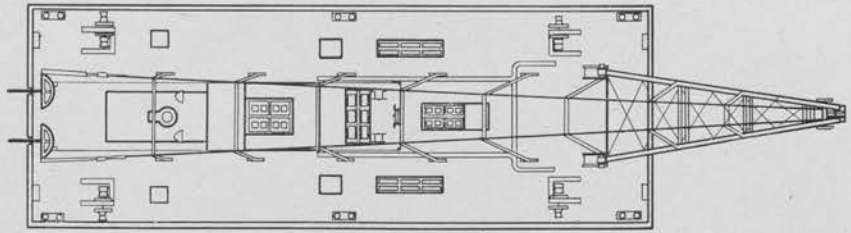
This specially built 2,000-ton Japanese craneship (name unknown) was first seen at Shanghai in 1937. It was used to raise sunken blockships, and has now probably been converted to merchant use.



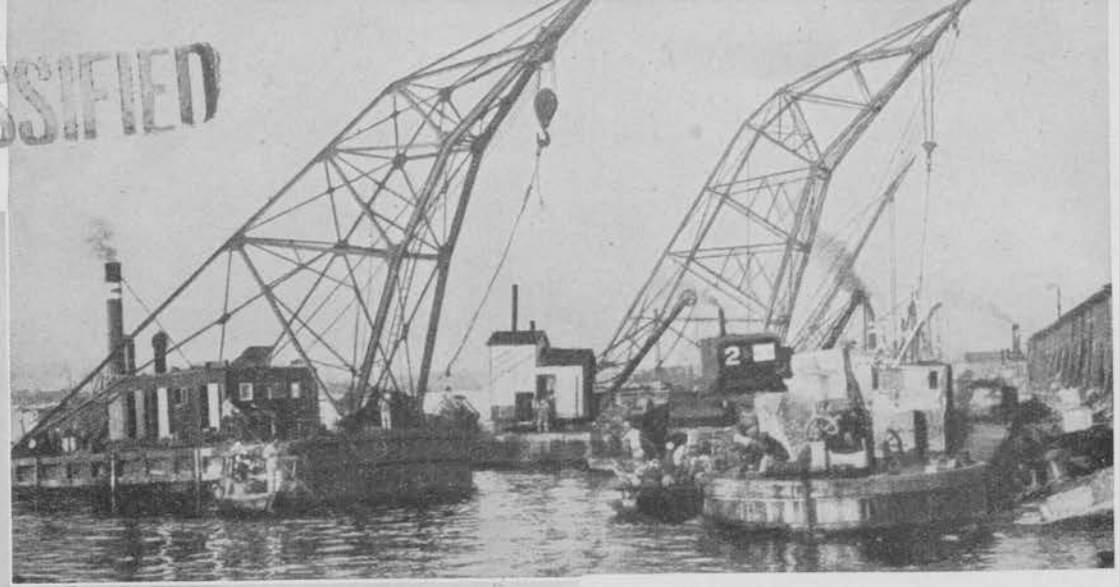
▲ Above are two extreme examples of the slewing-type cranes.



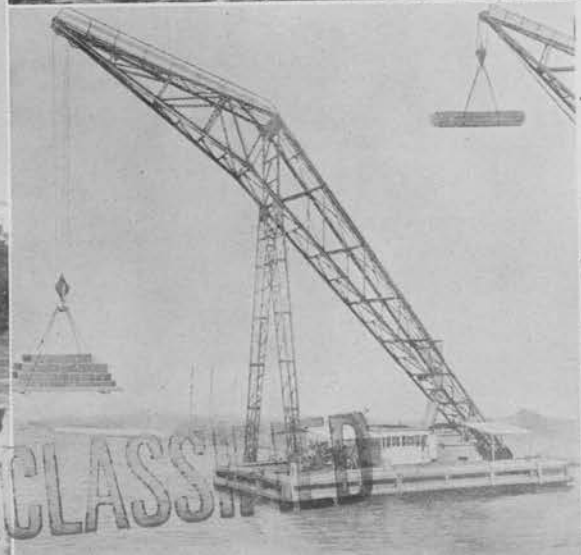
▼ A large slewing crane and a 50-ton, nonslewing floating crane. Dimensions of the latter's self-propelled barge are 104′ x 38′; height of crane is 48′ above water line.



A typical native-built, pile-driving shearlegs.



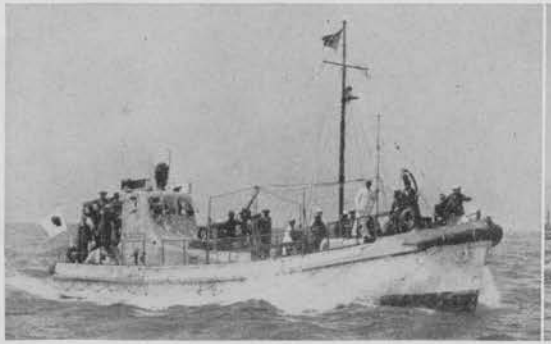
Two examples of the smaller type of self-propelled, nonslewing crane.

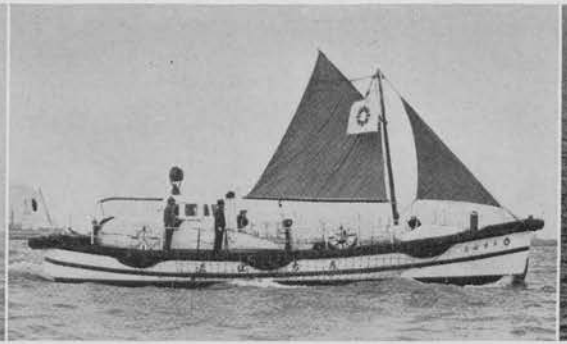


Modern type of self-propelled shearlegs salvaging a Chinese PT in Shanghai, 1937. ▼

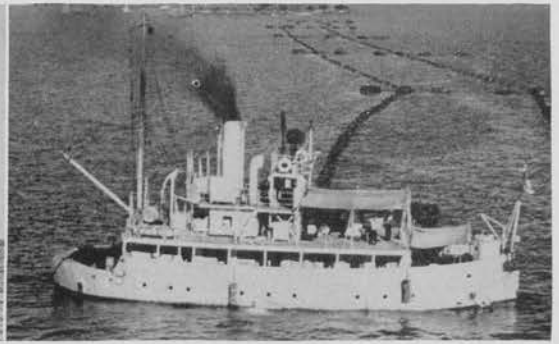
MISCELLANEOUS UTILITY VESSELS

Included here are some examples of the vast variety of utility vessels (other than tow launches) which perform the many miscellaneous harbor functions. The majority of these seem to be vessels converted from other designs, or specially built types. No two of them, although performing the same function, will necessarily be alike in appearance. Included as "miscellaneous functions" are rescue work, tending of navigational aids, harbor and wharf protection, postal carrying, water carrying, etc.



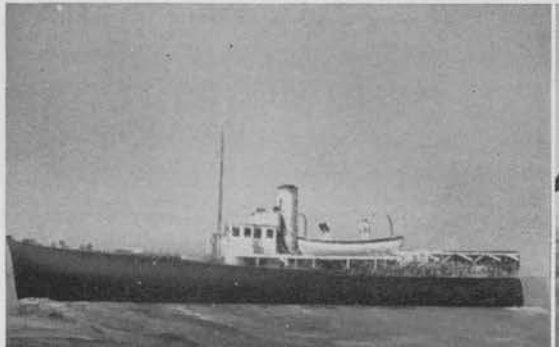


The two vessels shown above are rescue launches for harbor and coastal accidents. They are equipped with rope-casting gun and lifesaving gear, range up to about 40 gross tons, are 65′ in length, and have a maximum speed of about 12 knots.



A British boom tender operating in the entrance to Hongkong Harbor.

A number of minor naval auxiliaries such as these were captured by the Japanese. Left to right are: A customs buoy tender designed for Yangtze River duty, a modern 100′ postal ship, similar to the tow-launch design, an ex-Chinese lightship, typical of many Far-Eastern types.



Less noteworthy from a military standpoint than other small craft types, native craft are nevertheless one of the most interesting groups for study. There are more native craft in operation than any other type in registry, and as the Japanese Navy is brought closer to annihilation, every unit at its disposal, regardless of size, may be employed in defense. On numerous occasions our patrols have contacted innocent appearing sailing vessels which on closer inspection were found to be radio equipped for guard duty or loaded with contraband of oil drums or other military cargo. Many others have acted as anti-submarine decoys and suicide craft. Further significance is given by the Japanese Government's attempts to install small engines in Chinese junks, supplementing the mass production wooden ship program. It should also be remembered that in the China and Burma theaters a large percentage of inland passenger and cargo traffic is conducted by means of native barges, ferries, and sampans.

Native craft may be very generally classified as dugout, canoe, raft, or sailing types, with a maximum size of 100 gross tons. However, such a collection is less standardized than any other group, and arbitrary definition of types is impossible. Therefore, native craft are presented by their representative geographical provinces. There is a certain amount of overlapping of types between areas, and there are undoubtedly native vessels not covered in this text; but these pages will furnish a cross section of native craft *typical* of the following areas:

1. Japan proper.
2. China.
3. Burma, Thailand, Indo-China.
4. Malay Peninsula, Sumatra.
5. East Indies, including Java, Borneo, and New Guinea.
6. Philippine Islands.

JAPANESE NATIVE CRAFT

At least 15,000 sailing vessels of 100 tons and less size operate under Japanese registry, and though many of these vessels are discussed primarily as fishing craft practically all this total belongs in the native craft group. Most Japanese native craft will be observed performing harbor or river duty, but in outlying coastal areas these vessels have been noted as sentry or watcher boats, and many of the native sailing types are capable of navigating the Inland Sea or Korean Strait.

Native influence is noticeable in the cargo-barge section, since the sampan is the predecessor for practically all river and harbor barges seen in Japan today. The Japanese sampan is built with long raking stem, vertical square stern, and broad flat keel of great thickness. Sailing sampans are rigged with one, two, or three masts and square sails, and a large number are now fitted with motor and screw propulsion. Smaller craft are propelled by a single scull rigged out on the port side near the stern, with more sculls being used on both sides as the dimensions increase.

Influence of native design is also marked in the hull shapes of the modern sea truck cargo types, many of which retain the bowsprit, high masts, and overhanging stern of earlier sailing craft.

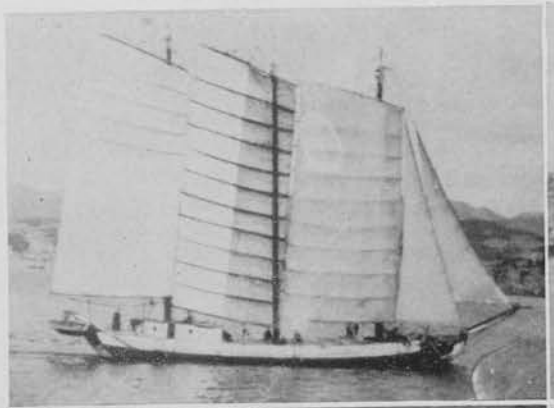
JAPAN—SAILING SHIPS

USE—Fishing, interisland trade, cargo carrying.

DESCRIPTION—Schooner or junk rigged with up to five sails on two or more masts. Deckhouse is usually aft; most have bowsprit and overhanging stern.

TONNAGE—Most are 20 to 100 tons; some range up to 500 tons.

PROPULSION—Only larger types are fitted with auxiliary motors.



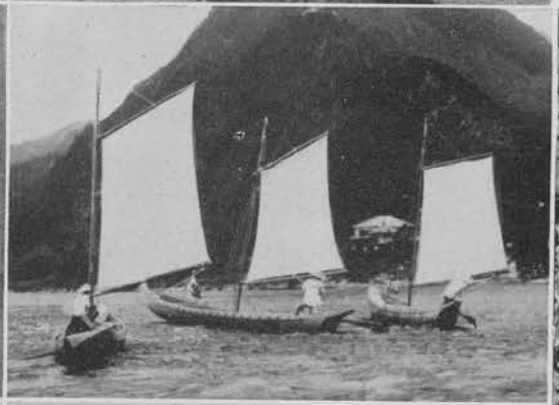
SAMPANS—JAPAN

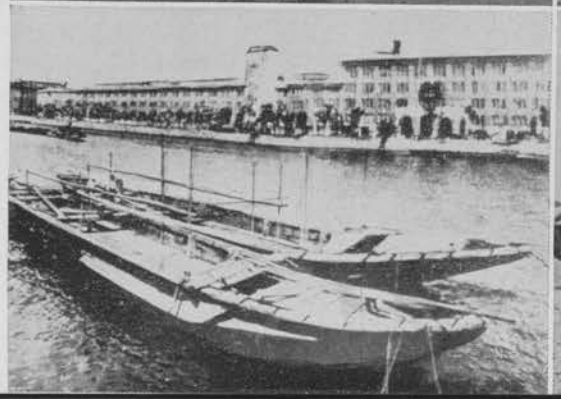
USE—Localized cargo and passenger transport.

DESCRIPTION—Raking pointed bow, square stern. Sailing types may fit up to three masts and square sails.

SIZE—Up to 40′ max. length.

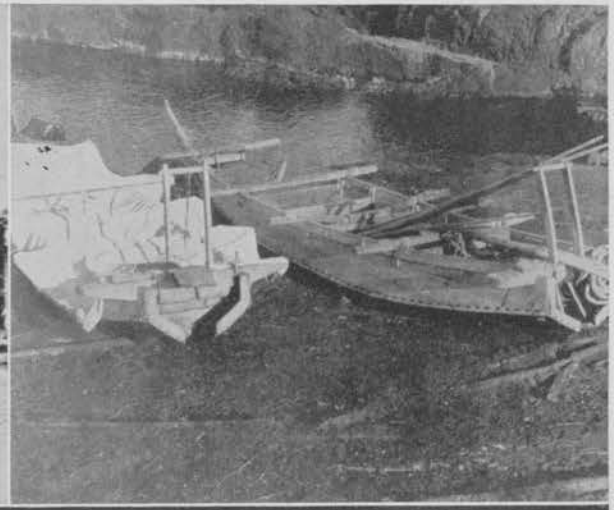
PROPULSION—Scull, sails, or motors on newer types.

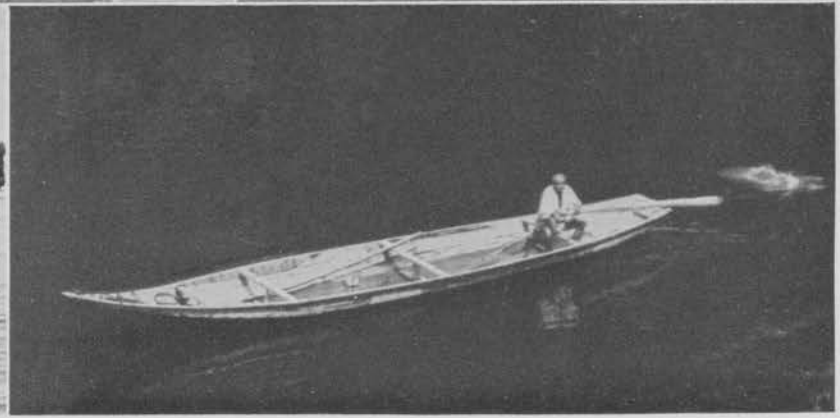




JAPAN—SAMPANS AND BARGES

These craft will be seen in almost all Japanese rivers, harbors, and coastal areas.



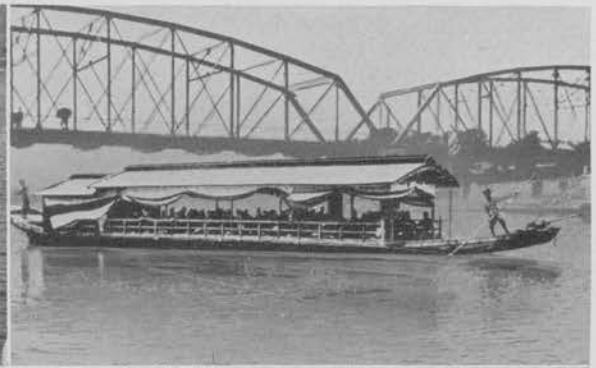


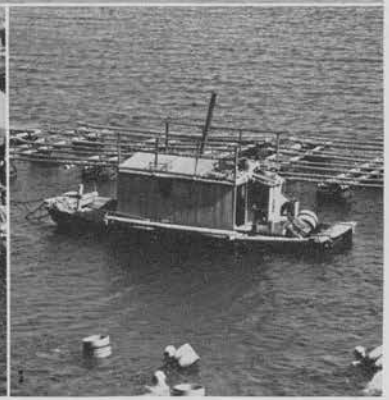
NATIVE HOUSEBOATS, Etc.

USE—Houseboats, pleasure craft, ferries, etc.

DESCRIPTION—Miscellaneous sampan or barge hulls with deckhouse erected. Range in sizes up to 100′ long.

PROPULSION—Most are poled or sculled; some motor driven.

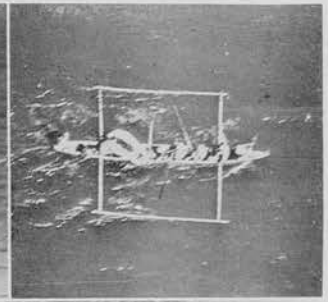




USE—Fishing, utility, coast watching.

DESCRIPTION—Hollowed, shaped logs with or without outrigger. Size ranges up to 30′ (o. a.).

REMARKS—Seen in quantity in Micronesia and Melanesia; less around Japan.

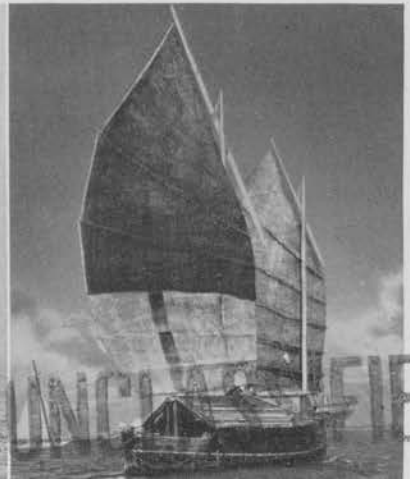


These ships are still the most important native type found on the China Coast. In spite of many local variations, they can all be recognized by their heavy wooden hulls, high poop, and large lugsails (up to 5 in number). Junks can be divided by function and size into trading junks, fishing junks, and river junks.

Oceangoing trading junks range up to 200′ long; are often fitted with auxiliary charcoal, gas, or Diesel engines.

Fishing junks, although seagoing, are usually smaller than the trading types, and range up to 90′ over all. They perform the functions of trawlers, purse seiners, and line-fishermen.

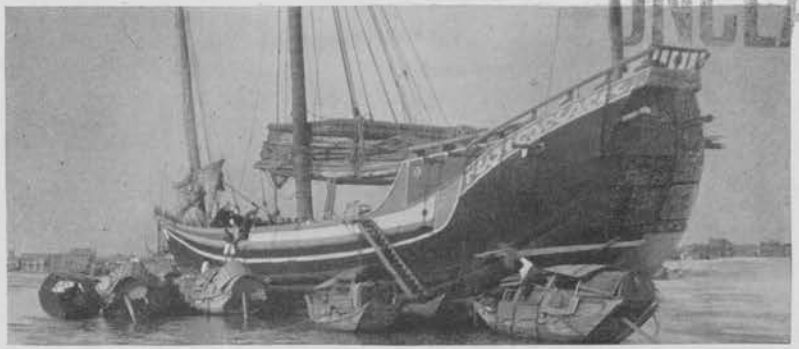
These photos typify the Hongkong types.



Combination fishing-trading junks are typified by these Amoy types. They range up to 70′ over all and 150 gross tons. Some have made trans-Pacific crossings, attesting to their seaworthiness.

It has been estimated that a 70′ junk carries 47.5 tons payload; an 80′, 70 tons; 90′, 108 tons; 100′, 156 tons; and a 110-footer, 220 tons.

These PECHILI types represent the larger seagoing trading junks; range from 140′ to 180′ over all, 20′ to 30′ in beam, and up to 400 gross tons. Normal crews consist of 20 to 30 men. These junks have been extensively used for military transport all along the China Coast.



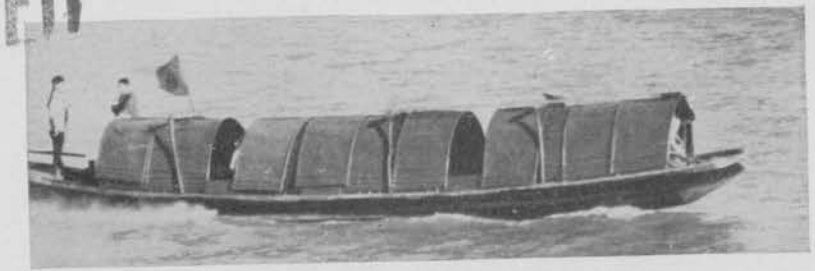
Other types of specialized trading junks are the lumber carriers called the Foochow pole junks (above), and the Chusan Archipelago type (below).

The Foochow type ranges from 120′ to 180′ over all, and up to 400 gross tons, while the smaller Chusan group (below) is 50′ to 70′, with a tonnage up to 120 gross. Both types are seen in quantity along the China Coast.

Typical of the smaller types is this Yangtze River junk used to transport passengers and cotton bales. Lengths vary from 40′ to 60′.

Other typical types, in clockwise order, are—common Yangtze River junks, small harbor type; and (below) a large trading junk.

The word "sampan" is used very broadly in the Orient to denote any small wooden boat or skiff. In China the sampan is generally a small utility boat used in sheltered waters for fishing and transport of cargo and passengers. Like the Japanese type, the sampan hull is wedge-shaped, with a wide beam-to-length ratio. It differs in its transom bow, raking stern, and absence of a keel. The sampan is normally sculled from the stern, although some types are rigged with a single mast and battened lugsail; and occasionally powered sampans will be seen. However, most small powered sampans are actually launches, and should not be confused with this native type. Normal sampans run between 10′ to 30′ long, although a few exceptions are as large as 60′.



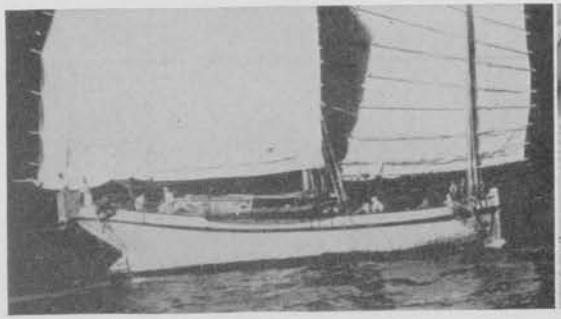
Japanese powered steel sampan used in the China campaign.

Typical 20′ river sampan showing stern horns.

Chinese Army Engineers (above) and Japanese Marines (below) both used the sampan type as landing craft during the China campaign.

A houseboat built on a sampan hull.

The larger single-sail type. ▶



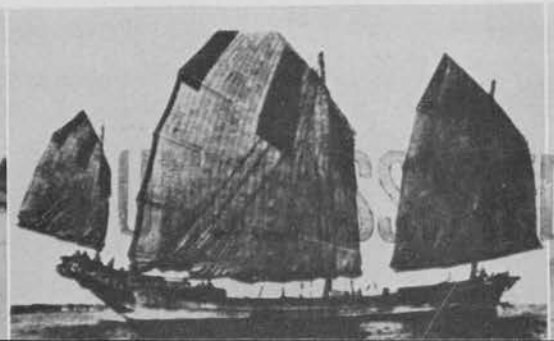
SANDOWAY TYPE—A two-masted cutter with forward hold and after cabin, used in coastal trading from Akyab to Bassein. Length varies from 50′ to 60′; tonnage and cargo capacity from 50 to 70.

GAY-BAO, an Indo-Chinese trading coaster used around Annam. These double-enders with fore-and-aft rig vary from 40′ to 70′ in length.

MERGUI type schooner or junk-rigged trader for the Tenasserim Coast. These vary from 60′ to 80′ in length, 35 to 60 tons, and have a crew of 10.

TAVOY schooner type also trading along the Tenasserim Coast. These carry auxiliary power and range from 100′ to 120′ in length, 130 to 200 tons, and carry a crew of 11 to 13.

The HYLAM junk is a coastal trading type seen in the Gulf of Siam and the Annam Coast. Length is around 90′ over all; crew approximately 20.



GAY-YOO is a dragnet fishing type, 45′ to 50′ over all, often seen in the Bay of Tourance area. A small square sail is occasionally added to the boomed lugsails.

BURMA, THAILAND, FRENCH INDO-CHINA Native Craft

The LAUNG-GO is an Irrawaddy River type of 50′ to 75′ and 20 to 30 tons. An entire family usually lives on the boat.

The LAUNG-ZAT is a larger Irrawaddy type used to transport bulk cargo.

This is the typical native cargo-lighter seen in almost every port. Length varies from 70′ to 90′, tonnage from 100 to 250 (gross), and crew is usually 6.

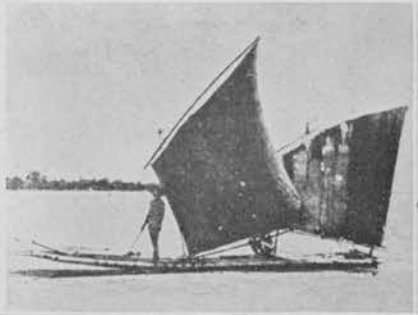
The Burmese river PADDY-GIG's carry the majority of bulk paddy from fields to mill. They range from 60′ to 80′ in length; have a crew up to 8.

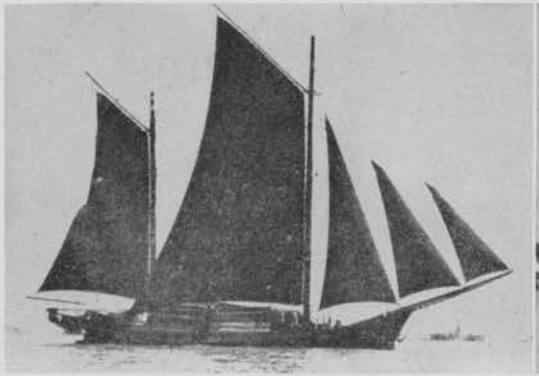
An example of the miscellaneous junk conversions. This one is now an Indo-Chinese pleasure boat.

KISTIE's occur in Burma in the Naaf-Cheduba area, and are used for paddy transport. Hull is a built-up dugout type, 35′ to 40′ long, with a capacity up to 20 tons and a crew of 20 oarsmen.

BURMA, THAILAND, AND FRENCH INDO-CHINA Native Craft

This page illustrates a rough cross section of the miscellaneous types, sizes, and local variations encountered in Far-Eastern native craft. The majority of these are harbor or river craft engaged in local trade and fishing.





The TONGKANG is a 90′ to 100′ timber-carrying type with a ketch rig of 3 headsails and loosely footed mainsails.

The TRENGGANU or PRAU BERAR is a Malayan trader with two masts raking forward and Chinese lugsails. Length averages approximately 80′ over all.

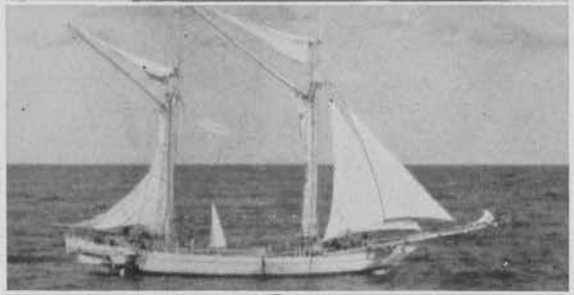
Chinese trading junks are also popularly used along the Malay Coast and in Singapore. They average around 85′ in over-all length; are manned by a crew of 15.

Typical large native lighters and Chinese sampans are also abundant in this area. The TWAKOW is a 50′ to 60′ cargo lighter peculiar to Southern Malaya.

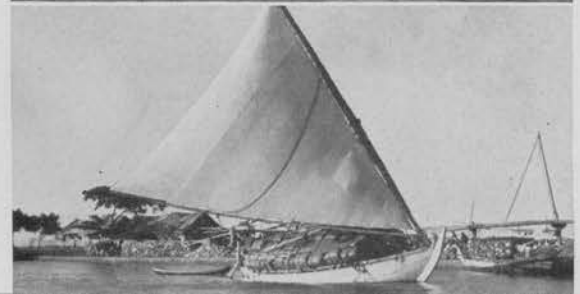
NETHERLANDS EAST INDIES Native Craft

In this area the diversification of native craft types and designs reaches a maximum, since almost every local tribe and village has its own individual type of fishing boat and barge. These are all covered by the generalized term "prau" or "prahu," which means any East Indian small boat. Since complete coverage is impractical, these illustrations are selected merely to show a cross-sectional view of all N. E. I. native shipping.

The LAMBO sloop is a typical small (30′ to 45′) coastal trader. ▶

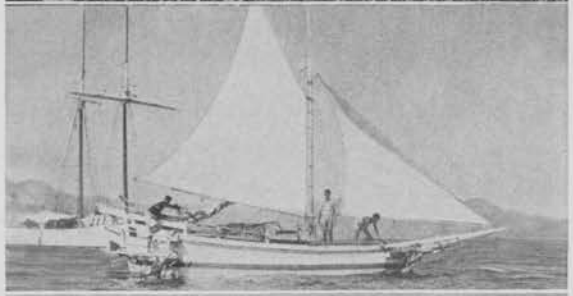


◀ Trading schooners are usually 80′ to 120′ long, have 2 or 3 masts, and are fitted with auxiliary engines. These can be found from Singapore to New Guinea.

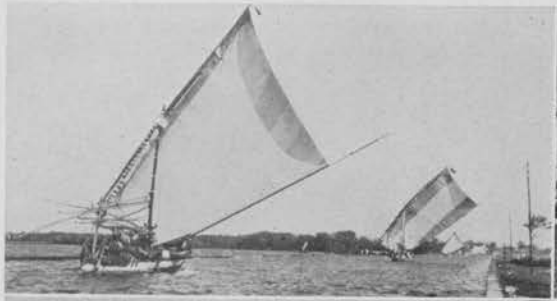


◀ This ketch-rigged Makassar PRAU typifies the larger (60′ to 70′) trading types. The one at left was equipped with radio and engaged in carrying fuel drums. ▶

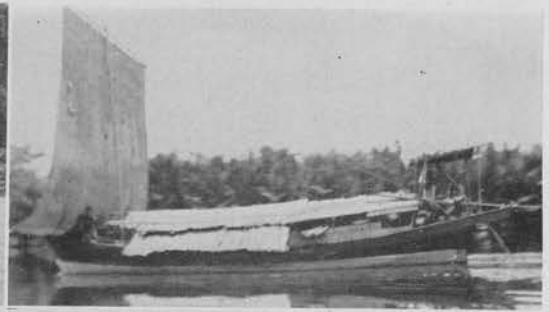
◀ The Modoera PRAU is typical of the smaller (40′ to 50′) schooner-rigged trading types. Notice the heavy modified triangular sail in upright and secured position. ▶

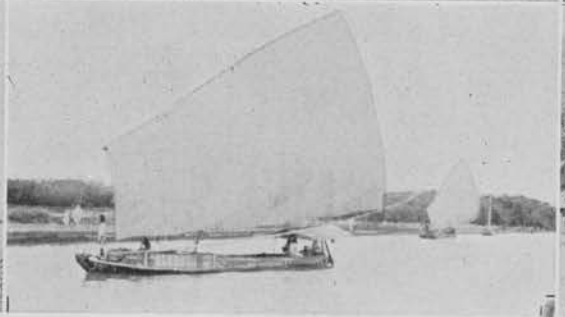


Native Craft NETHERLANDS EAST INDIES



The craft illustrated on this page are typical N. E. I. sailing barges which carry on most of the inland-to-port river trade. Most are between 50′ and 70′ over all, are beamy, shallow-draft craft with a long spritsail. Steering is done by rudder or quarter paddles.





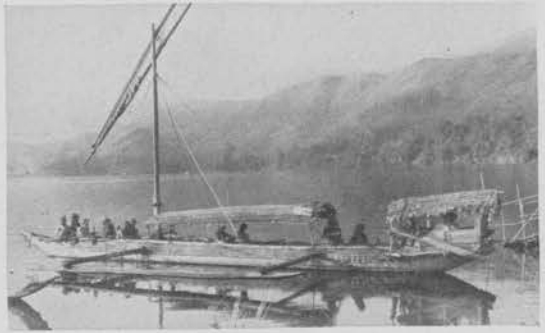
NETHERLANDS EAST INDIES Native Craft

▼ Native cargo barges and two types of sampans.

The native canoe, whether plank-built or dugout, is the most common local fishing and general utility craft in the N. E. I. Their seaworthiness is limited to inshore waters, however. They may be equipped with single or double outriggers and a portable bamboo mast and matted sail. The basic difference between these types is apparent in their names.

▲ Dugout type, locally called MAYANG.

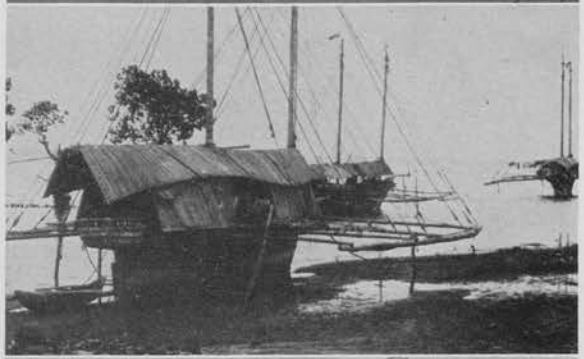
▼ Celebes plank-built type capable of transporting 30 passengers.



Native Craft PHILIPPINE ISLANDS

◀ There are well over 200 sailing vessels registered in the P. I., most of which engage in inter-island trade or fishing. The majority of these run from 10 to 40 tons, although a few range up to 70′ long and 100 gross tons. Their appearance is fairly standard with two masts forward, deckhouse aft. ▶

◀ The BATEL is a 40′ to 50′, 20 to 40 ton dugout or plank-built craft fitted with sails and outriggers. These carry on a great deal of the inter-island native passenger and utility functions. ▶

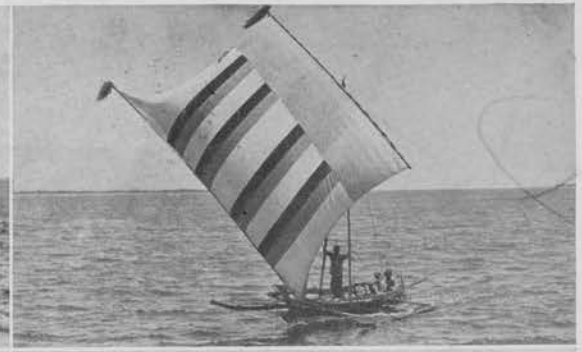


◀ The DALAMIS is a larger, two-masted, 50′ to 60′ cargo-carrying type found in Southern Mindanao. It is often equipped with auxiliary power.

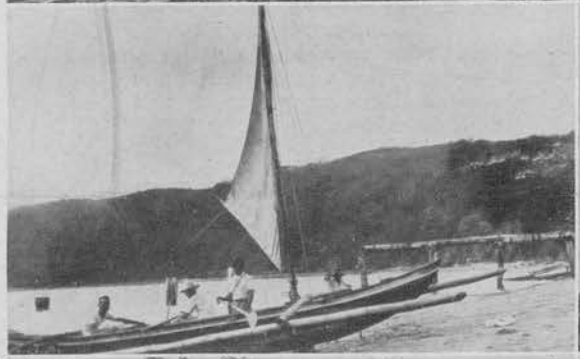
The LIPA and SAPIT are cargo-carrying, 40′ to 50′ types peculiar to Mindanao and Sulu. They can be distinguished by their rectangular sail, absence of outriggers. ▶

PHILIPPINE ISLANDS Native Craft

The VINTA is a general fishing-utility dugout with outriggers and a large rectangular sail fitted. The common length is from 30′ to 40′, although some range up to 60′ over all. These are usually seen in the Visayan Islands and south of the Sulu Sea. ▶

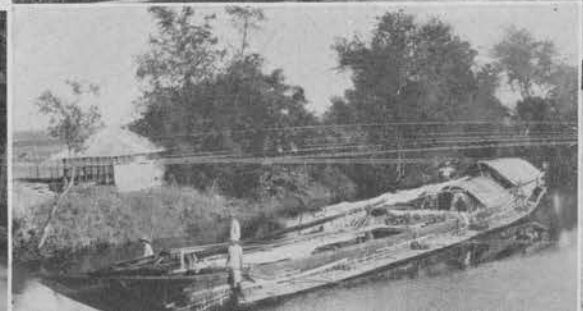


BANCA is another dugout fishing type, usually 15′ to 25′ long, but ranging up to 60′ over all in the larger types. ▶



Below, left to right—

The LORCHA, a heavy wooden river lighter of varying sizes. The CASCO, a combination river cargo barge-houseboat, ranging up to 80′ long, 90 gross tons. The BALSA raft, used to transport passengers, vehicles, and cargo. ▼



STATISTICAL INDEX OF ALL FAR-EASTERN SMALL CRAFT

This booklet is designed to be used with the RESTRICTED section of this supplement which deals with the appearance of Far-Eastern Small Craft

All known operating small craft between 100 and 1000 gross tons considered available to the Japanese are listed in this index. Combined with the other parts of ONI 208-J (Revised), it will present a complete list and statistical summary of all seagoing Japanese merchant shipping. A separate listing of all small craft converted to naval functions brings up to date the combatant aspect of this shipping.

This index does not include the specialized types such as utility vessels, minor combatant craft, etc., complete lists of which are included in sections of the "appearance" manual.

[redacted]

Issued 3/45 by the Division of Naval Intelligence.

[redacted]

NAVAL CONVERSIONS

This index includes all operational small craft known to have been converted to naval duties. It supersedes all other published lists issued previous to this date. These listings will undoubtedly change and probably expand as the war progresses, and as such information becomes available a revised list will be issued in one of the standard ONI publications.

The various naval conversions as grouped by the Japanese are as follows:

XPG—converted gunboats (larger freighters, passenger types).

XPC—converted subchasers (trawlers, whale-killers, bonito and fishing boats).

XAF—converted supply or refrigerator ships (trawlers, freighters).

XCM—converted minelayers (freighters, passenger types).

XAM—converted minesweepers (trawlers, whale-killers, small cargo types).

XAN, XYN—converted net-tenders (freighters, passenger types).

XAO—converted oilers (tankers, small freighters, barges).

XPP—converted picket boats (small trawlers, luggers, fishing craft).

For appearance, armament, and other characteristics of these conversions, look up the "naval use" for the original ship type (i. e., "freighters" or "small trawlers," etc.) in the preceding pages. These same ships are also included with additional data in the following over-all alphabetical type index.

XPG—CONVERTED GUNBOATS

The majority of these vessels are larger freighters over 1,000 GT, whose main duty includes patrol and escort, as well as cargo-carrying. Armament and other detailed information on these vessels is still very incomplete.

XPG'S UNDER 1,000 GT

Aso Maru	704 GT	AK; govt. requisitioned; machinery aft; cruiser stern; refrigeration machinery.
Choko Maru #2	889 GT	
Eifuku Maru	756 GT	Passenger.
Fukuei Maru #10.	847 GT	XPG-AK; cargo.
Hino Maru #2	998 GT	Cargo.
Hyakufuku Maru.	986	Passenger.
Kenzan Maru	950	Cargo; also known as Kensan Maru.
Kiso Maru	703 GT	AK; govt. requisitioned; machinery aft.
Matsuei Maru #2.	165	
Shinko Maru:		
#1	129	XPP; govt. requisitioned.
#2	118	Govt. requisitioned.
#1 GO	934	XPG 144; cargo.
Shosei Maru	988	XPG 133; passenger.
Unkai Maru	855	XPF 132; govt. requisitioned; cargo.

XPC—CONVERTED SUBCHASERS

This group is made up of converted trawlers, whale-killers, and smaller fishing types between 80–370 gross tons. A fairly complete description of each type is included under "naval use" in the fishing boat categories.

XPC'S UNDER 1,000 GROSS TONS

Name	G. T.	Remarks
TRAWLER TYPES		
Azuchi Maru	398	Reported as transport; also AF (1942).
Banshu Maru:		
#18	264	Fish carrier; reported as XAM; refrigeration machinery.
#51	234	Trawler; XAM.
#53	267	Trawler.
Bunzan Maru	97	Fishing boat.
Chikyu Maru	88	Fishing boat.
Chikuto Maru	89	Fishing boat.
Fuyo Maru	216	Also reported as whaler.
Hinode Maru #5	140	Fishing boat; may be known as Hinode Maru.
Kenkai Maru	89	Fishing boat.
Misago Maru:		
#1	265	Trawler; also reported as XAM.
#2	265	Trawler; reported as XPC.
#3	267	Trawler; also reported as XAM.
#8	281	Trawler; XAM.

XPC'S UNDER 1,000 GROSS TONS

Name	G. T.	Remarks
TRAWLER TYPES—Continued.		
Nanko Maru	89	Fishing boat.
Nippon Maru #2 GO.	88	Small hand-net fishing boat.
Nisui Maru	89	Fishing boat.
Oyo Maru	88	Small hand-net fishing boat.
Rikoku Maru	88	Small hand-net fishing boat.
Royo Maru	88	
Sankyo Maru	89	Fishing boat.
Soga Maru	247	Trawler.
Tenzan Maru #2 GO.	97	Fishing boat.
Yaryu Maru	97	Fishing boat.
Yoko Maru	88	Small hand-net fishing boat.
Zuiko Maru	88	
FREIGHTER TYPES		
Choun Maru:		
#18	195	Also reported as XAM.
#21	195	Also reported as XAM.
Eisho Maru	104	
Keizan Maru	198	Machinery aft; also reported as XPG.
Kotobuki Maru #5	723	Also listed as XYN.
Nissho Maru #6	642	Government requisition; also listed as AK.
TUGS AND PASSENGER VESSELS		
Hayatomo Maru	697	Passenger.
Kokuto Maru	109	Icebreaker tug.
ex-WHALE KILLERS		
Ayukawa Maru	198	
Fukushima Maru	109	Sloop; refrigeration machinery.
Fuyo Maru	216	Also listed as trawler.
Geiyo Maru	197	Machinery aft.

Name	G. T.	Remarks
ex-WHALE KILLERS—Continued.		
Kyo Maru:		
#1	340	
#2	340	
#5	341	
#7	340	
#12	344	Probably whaler.
#13	340	
Nagato Maru	279	
Seki Maru #2	359	Machinery aft.
Shonan Maru:		
#1	350	
#2	350	Machinery aft.
#3	350	#632; armed with one 3.1" gun; machinery aft.
#5	350	#592; armed with one 3.1" gun; machinery aft.
#6	355	#593; armed with one 3.1" gun; machinery aft.
#7	355	#653; machinery aft.
#8	355	#583; machinery aft.
#10	350	#603; machinery aft.
#11	350	Machinery aft.
#12	355	Machinery aft.
#17	355	
Showa Maru	187	
Showa Maru #2	194	XPC #243.
Showa Maru:		
#3	224	#632 or #554.
#5	220	#552.
#6	217	XPC #261.
Taito Maru #1	110	Sloop; may be known as Daisoku Maru #1 GO.
Takunan Maru:		
#2	343	Also reported as XAM.
#5	343	Also reported as XAM.
#6	343	Also reported as XAM.
#7	343	Also reported as XAM.
#10	343	Also reported as XAM.
Tama Maru #8	279	#562.
Toshi Maru #3	299	#561.

Name	G. T.	Remarks
UNKNOWN TYPES		
Akitsu Maru	97	
Aoi Maru	244	
Byoritsu Maru	99	Probably hand-net fish-ing boat.
Chokai Maru	136	
Choun Maru:		
#13	96	
#15	96	
#16	95	
Daian Maru		
Daiko Maru		
Daito Maru #1	190	Inactive?
Ensui Maru	97	
Hakusan Maru	89	
Hassen Maru	99	Probably hand-net fishing boat.
Hinan Maru	99	
Hinode Maru #3	86	
Hokoku Maru #3 GO.	88	
Inzan Maru	99	Probably hand-net fishing boat.
Isshin Maru #1	48	
Jikyu Maru	88	Probably Tikyu Maru.
Kainan Maru	88	
Kanan Maru		
Kashin Maru	88	
Katsura Maru	126	
Kinsui Maru	89	
Kintoku Maru #13 GO.	45	
Koei Maru		
Koshin Maru		
Koshun Maru	88	
Kumi Maru	80	
Kuryu Maru	97	
Kyo Maru #12	344	Presumably whaler.
Mato Maru	88	

Name	G. T.	Remarks
UNKNOWN TYPES—Continued.		
Meigen Maru:		
#16	71	
#17	71	
Mokuto Maru	99	Probably fishing boat; similar to Tenzan Maru #2.
Musha Maru	99	Probably hand-net fishing boat.
Nitto Maru:		
#3	90	
#5	90	
#8	92	
#9	92	
#10	92	
#11	92	
#12	92	
#13	92	
#15	96	
#16	96	
#17	96	
#18	96	
#19	96	
#20	96	
#21	95	
#22	95	
Nohi Maru	88	
Noni Maru		
Notto Maru #3		
Noyagi Maru		
Nuzan Maru	99	
Pinan Maru	99	
Ranyo Maru	70	
Roshu Maru	99	Probably hand-net fishing boat.
Ruyi Maru		
Ryo Maru		
Ryosui Maru	99	Probably hand-net fishing boat.
Ryui Maru		
Ryusei Maru	99	Probably hand-net fishing boat.
Sagishu Maru		
Shimpei Maru #1		
Shinbei Maru #1 GO.	52	
Shinko Maru	88	
Shinran Maru		

NAVAL CONVERSIONS

Name	G. T.	Remarks
UNKNOWN TYPES—Continued.		
Shofuku Maru		
Shuko Maru	889	XPC? also reported as XYN.
Shukusei Maru		
Sobow Maru	99	
Sobun Maru	99	Probably hand-net fishing boat.
Sosui Maru	88	
Sozan Maru	86	
Suijo Maru		
Taian Maru	86	
Taiton Maru	88	
Toseki Maru	89	
Tsukai Maru	88	
Tsuran Maru	99	Probably fishing boat; similar to Tenzan Maru #2 GO.
Uji Maru	872	Also reported as XYN-AK.
Urai Maru	89	
Wabi Maru	99	Probably hand-net fishing boat; also Waml.
Yobai Maru	99	

XAM—CONVERTED MINESWEEPERS

This category is made up of trawlers, whale killers, and converted passenger or freighter types, generally within the 200–350-ton range. As XAM's, these craft are equipped with high- and low-speed, single-ship and catenary sweeping gear, degaussing, and usually one 3″ gun plus automatic weapons. For a fuller description of specific examples, see "naval use" as applied to whale killers.

XCM—CONVERTED MINELAYERS

In addition to the ships listed below, there are seven cargo-passenger types over 1,000 GT which can be found in ONI 222–J or 208–J. Very little is known about these smaller vessels beyond the information included in the statistical index of this manual.

XAM—CONVERTED MINESWEEPERS

Name	G. T.	Remarks
TRAWLER TYPES		
Ataka Maru	275	
Banshu Maru:		
#18	264	Fish carrier; refrigeration machinery.
#51	234	
#56	267	Machinery aft.
TRAWLER TYPES—Continued.		
Chikushi Maru	220	May be known as Tsukushi Maru.
Ebon Maru	195	
Eifu Maru	216	
Hagoromo Maru	312(S) 234(BL)	
Haguro Maru:		
#6		See Hakata Maru #6.
#7		See Hakata Maru #7.
Hakata Maru:		
#6	262	May be known as Haguro Maru #6.
#7	257	May be known as Haguro Maru #7.
Himeshima Maru	274	Refrigerator machinery ketch.
Hinode Maru:		
#15	220	
#17	235	
#18	235	
#20	281	
Hoei Maru	219	
Hokkai Maru	407	Refrigerator machinery.
Iwate Maru	158	
Kaiko Maru	233	
Kamo Maru	234	Passengers.
Kasuga Maru	219	
Keinan Maru	316	Refrigerator machinery.
Kiku Maru	233	
Kongo Maru #2 GO	216	
Kurama Maru	233	Machinery aft.
Misago Maru:		
#1	265	
#3	267	
#8	281	
#11	318	Refrigeration machinery.
Musashi Maru	227	Machinery aft.
Naruo Maru	216	
Noshiro Maru #2 GO.	216	
Nunobiki Maru	219	
Otowa Maru	220	
Ranzan Maru	219	May be known as Arashiyama Maru.
Reisui Maru	219	May be known as Reishui Maru.
Rikuzen	221	Machinery aft.
Rokko Maru	225	May be known as Rokuko Maru.
Rumoe Maru	220	
Sapporo Maru	400	Reported AF in 1942.
Sonobe Maru	220	
Takao Maru	220	
TRAWLER TYPES—Continued.		
Takasago Maru	275	
Tamasono Maru:		
#1	313	
#2	316	
#3	316	
Tamura Maru	236	
Teshio Maru	397	Reported as AF
Torishima Maru	268	
Ujina Maru	227	
Yoshino Maru	220	
ex-WHALE KILLERS		
Kyo Maru:		
#1	340	
#3	341	
Seki Maru	297	
Seki Maru #3	300	
Shonan Maru #16	354	
Showa Maru:		
#7	264	Machinery aft.
#8	264	Machinery aft.
#10	264	Machinery aft.
Takunan Maru:		
#1	343	Machinery aft.
#3	343	Machinery aft.
#5	343	Machinery aft; reported as XPC; sunk?
#6	343	Machinery aft; reported as XPC; sunk?
#7	343	Machinery aft; reported as XPC; sunk?
#8	343	Machinery aft.
#10	343	Machinery aft; reported as XPC; sunk?
Tama Maru	264	
Tama Maru:		
#6	257	
#7	277	
Toshi Maru	294	
Toshi Maru:		
#2	294	
#5	299	
#7	298	Machinery aft.
#8	298	Machinery aft.
PASSENGER TYPES		
Aoi Maru	358	Machinery aft.
Bisan Maru	344	Cargo-passenger.

Name	G. T.	Remarks
PASSENGER TYPES—Continued.		
Chitose Maru	246	
Fuji Maru	231	Cargo-passenger.
Meshima Maru	336	Cargo-passenger.
Shintohoku Maru	352	
Takashima Maru:		
#2	162	Machinery aft; reported as XAM-AP, AK 493.
#3	162	Machinery aft; reported as XAM-AP, AK 563.
Togo Maru	303	Cargo-passenger.
FREIGHTER TYPES		
Choun Maru:		
#6	167	
#7	164	
#8	164	
#18	196	
#21	196	
Choyo Maru	80	
Choyo Maru #2	182	
Eguchi Maru #3	199	
Fukue Maru #7	285	
Kiri Maru #5	335	
Kosan Maru	278	
Kyojin Maru:		
#1	425	May be known as Keizin Maru #1.
#2	433	May be known as Keizin Maru #2.
#3	433	May be known as Keizin Maru #3.
#5	433	May be known as Keizin Maru #5.
Miyo Maru	335	May be known as Midai Maru.
Oi Maru	397	Machinery aft.
Senyu Maru #2	281	
Senyu Maru #3	337	Machinery aft.
Shinpo Maru	294	Also reported as transport.
Taian Maru	193	
Taihei Maru #3 GO	193	
Taisei Maru	228	
Taito Maru	267	
Tokuho Maru #10	353	
Yachiyo Maru	271	
UNKNOWN TYPES		
Ataku Maru	275	
Atsu Maru	246	
Atsu Maru	160	
Genji Maru		
Sakaki Maru	275	

XCM—CONVERTED MINELAYERS

Choan Maru	330	May be known as Choan Maru #2 GO; cargo.
Kinjo Maru	330	Passenger.
Minsei Maru	378	
Shinko Maru	934	
Urara Maru	407	

XAN-XYN—CONVERTED NET TENDERS

Most of these conversions are freighters over 500 gross in tonnage, with nine of them known to exceed 1,000 GT. Although little is known about their specific appearance, some can be identified by the stern net-handling platform.

NET TENDERS UNDER 1,000 GROSS TONS

Name	G. T.	Remarks
PASSENGER TYPES		
Agata Maru	302	Mchy. aft.
Daikokuten Maru	648	
Eiryu Maru	758	
Hiro Maru	549	Possibly Hiroshi Maru.
Kiri Maru #1 GO	531	May be known as Kiri Maru.
Sansui Maru	812	
Shosei Maru	773	
Taishu Maru	516	XYN-AP-AK 559.
Tamae Maru	937	Also listed as AK.
Toyo Maru #3	985	
FREIGHTER TYPES		
Choki Maru	926	
Choko Maru	889	
Hinoki Maru	599	
Hiroshi Maru #3	940	XYN-AK.
Iwato Maru	526	Also known as Ewato Maru; AK.
Kanko Maru	909	
Katsura Maru	540	#621? Mchy. aft.
Koa Maru #2	351	
Kogi Maru	857	3-island.
Kokai Maru	540	Machinery aft.
Kokko Maru	716	
Korei Maru	540	
Kotobuki Maru: #5	720	Reported as XPC.
Kudamatsu Maru	295	
Nagara Maru	856	XYN or AK.
FREIGHTER TYPES—Continued.		
Nissho Maru:		
#3	676	XYN-AK.
#5	782	XYN-AK.
Seiko Maru	708	
Shinto Maru #2	540	Machinery aft; 3-island.
Shuko Maru	889	
Shunsen Maru	971	May be known as Harukawa Maru; 3-island.
Tatsu Maru	500	XAN-AK.
Toko Maru #1 GO	722	May be known as Toko Maru #1.
Ugi Maru	872	
Wakamiya Maru	547	Machinery aft; may be known as Wakamiya Maru.
Zuisho Maru	534	Also reported as AK.
UNKNOWN TYPES		
Cbokai Maru		
Kashi Maru	540	
Kishin Maru	897	
Koa Maru #2 GO	572	
Koei Maru	863	
Koga Maru	909	Under construction, 1940.
Kumano Maru	850	
Matsu Maru	509	
Osei Maru	641	
Shoeki Maru	890	
Shofuku Maru	891	Reported as #591.

XPP—PICKET BOATS

This category includes all local defense vessels engaged in coast-watching, anti-submarine patrol, and short-run convoy escort. The following list should be taken as indicating only a certain group of these craft—perhaps those attached to naval bases or other special units—since it is a known fact

that the great majority of all seaworthy, smaller fishing, and native types perform auxiliary patrol duties.

In general, this group contains vessels ranging from 30–150 gross tons, indicating that they are mainly small trawlers, bonito, and other fishing boats, the "lugger" type cargo carriers, and miscellaneous local native craft.

Fuller descriptions are given under "naval use" in the sections applying to these types.

XPP—PICKET BOATS

Name	G. T.	Remarks
TRAWLER TYPES		
Choei Maru #27	121	Fishing boat.
Chokai Maru	136	Fishing boat.
Fukkyu Maru #1	152	Fishing boat.
Fukuichi Maru #5	150	Cargo carrier; fishing boat.
Fukushin Maru	155	Fishing boat (Gyosen).
Fukutoku Maru #1	139	Fishing boat-ketch; may also be known as Fukutoku Maru.
Fukuyoshi Maru #5	119	Fishing boat (Gyosen).
Gyofuku Maru	120	Fishing boat.
Hakuo Maru	135	Fishing boat.
Higashinippon Maru.	143	Fishing boat (Dragnet).
Hinode Maru	140	Reported as XPP.
Hinode Maru #8	118	Fishing boat.
Hiyoshi Maru #5	126	Fishing boat.
Kaiho Maru #2	121	Fishing boat (cargo).
Kaiko Maru	124	Fishing boat; aux. sail.
Kaiun Maru	133	Fishing boat.
Kaiyo Maru #1 GO	143	Trawler type.
Kinpo Maru #1	139	Small trawler cargo ketch; also known as Kinho Maru #10.
Koei Maru #10	111	Fishing boat.
Kosei Maru	111	Fishing boat; reported as XPP.
Meisho Maru	142	Trawler.
Mifuku Maru	161	Fishing boat.
Nanshin Maru #13	85	Fishing boat.
Nanshin Maru #15, #16.	85	
Nichinan Maru:		
#10		Reported as XPP—fishing boat.
#51		Reported as XPP—fishing boat.
Ponape Maru		Reported as XPP—fishing boat.
Sasayama Maru #5	116	Fishing boat; cargo.
Seikai Maru	48	Reported sunk.
Seisho Maru	128	XPP 301; fishing boat; auxiliary ketch.
Seiun Maru #5	146	Fishing boat.
Shinko Maru #1	129	Reported as XPG—fishing boat.
Shinko Maru #3	121	Fishing boat.
Shinko Maru #8	120	Fishing boat.
Shoei Maru #8 GO	125	Fishing boat.
Suiten Maru	131	Fishing boat-auxiliary ketch.
Taihei Maru #1 GO	109	Fishing boat; cargo; may be known as Taihei Maru.
Taihei Maru #2 GO	143	Fishing boat.
Taiyo Maru	188	Fishing boat.
Takasu Maru	126	Fish carrier.
Takenoura Maru or Takeura Maru.	116	Fishing boat; auxiliary ketch.
Yachiyo Maru #3	150	Trawler.
Yurin Maru	99	Fishing boat.
FREIGHTER TYPES		
Chiyo Maru #3	128	Cargo.
Fuyo Maru #2	159	Auxiliary ketch.
Hoei Maru	121	Auxiliary sail.
Kaio Maru	108	ex-Tug; cargo.
Kiho Maru #1	149	Ketch.
Santoku Maru #2	146	
Suzu Maru	106	Auxiliary sail.
UNKNOWN TYPES		
Aikoku Maru #2	38	
Amijima Maru #12	55	
Anba	92	Captured by Japanese; may be known as Awaba Maru.
Arafura Maru:		
#2	37	
#10	37	
Asahi Maru:		
#2		
#3		
#3 GO	147	
Benten Maru		
Bosei Maru:		
#1	81	
#2	80	
Chikuzen Maru	52	
Chiyo Maru:		
#1	141	
#2	144	
#3	128	
#5	76	
Choei Maru		
Choko Maru	75	
Choso Maru #5	89	
Choshu Maru:		
#1	60	
#2	60	
#5	89	
Choun Maru:		
#13	96	Also reported as XPC
#17	95	Also reported as XPC.
UNKNOWN TYPES—Continued.		
Choyo Maru:		
#3	74	
#5	74	
#7	91	
#8	81	
#9	81	
Daiho Maru #2	39	
Daijin Maru #1	143	
Daiki Maru	79	
Ebishu Maru #5		
Eifuku Maru:		
#2	156	
#3	157	
Eikichi Maru		
Fuji Maru		
Fuku Maru:		
#2	39	
#5	52	
Fukucho Maru	102	
Fukuju Maru #5	84	
Fukushige Maru #2	72	
Fukushin Maru #1	84	
Fukuyoshi Maru:		
#3	92	
#2 GO	98	
Fukyu Maru #3	65	
Gion Maru	40	
Gyosho Maru #2	99	May be known as Ryosho Maru #2.
Hachiryu Maru #12 GO.	97	
Hakko Maru	151	
Hanshin Maru	92	
Hayatori Maru #1	39	May be known as Hayadori Maru #1.
Heiwa Maru		
Hiei Maru	109	
Higashinippon Maru #2.	90	
Hinode Maru #2 GO	80	
Hinode Maru #3		
Hoei Maru #5	90	
Hokoku Maru #2	38	
Hokuyo Maru #2	80	
Hosai Maru #3	94	
Hosei Maru	92	
Hosho Maru #2	154	
Hyuga Maru		

Name	G. T.	Remarks
UNKNOWN TYPES—Continued.		
Ibaraki Maru	71	
Inari Maru:		
#2	113	
#2 GO	81	
Isuzu Maru	148	
Isuzu Maru:		
#3	74	
#11	88	
Jinko Maru #1	66	May be known as Jinko Maru.
Kaikata Maru #8		
Kaiko Maru	124	
Kainan Maru:		
#2	80	
#6	84	
#7	84	
Kairyu Maru		
Kaisei Maru	83	
Kaishin Maru		
Kaishin Maru #5	38	
Kaisho Maru	39	
Kaiun Maru #2	104	
Kaiwa Maru	99	
Kaiyo Maru:		
#1		
#2		
#2 GO	33	
#5	93	
#6	93	
Kano Maru	126	
Kano Maru #3	98	
Kasuga Maru #2		
Kazu Maru:		
#1	39	
#2	39	
#3	38	
#5	39	
Keisho Maru		
Kiho Maru #1	74	
Kimi Maru #11 GO	37	
Kinsei Maru	86	
Kinsho Maru	39	XPP 209.
Kiri Maru #2 GO	70	
Kishu Maru #2	38	
Kissho Maru #1		

Name	G. T.	Remarks
UNKNOWN TYPES—Continued.		
Kiyo Maru	80	
Kiyo Maru		
Koei Maru #11	99	Reported as #581.
Kofuku Maru	119	
Kogyo Maru:		
#11	52	
#12	52	
Kokai Maru:		
#1	73	
#6	78	
Koki Maru	80	
Kompira Maru		
Kompira Maru:		
#8	122	
#2		
89 GO		
Kosei Maru	103	
Kosei Maru #1	79	
Kosei Maru		
Koshin Maru	72	
Koshin Maru #5	69	
Kosho Maru #2	130	
Kotohira Maru #7	98	
Koza Maru #2	37	
Kunimiya Maru	104	
Kyowa Maru #2	108	
Luzon Maru	99	May be known as Ruson Maru.
Manei Maru	81	
Manju Maru	80	
Meiji Maru #2 GO	80	
Mie Maru	95	
Mishima Maru		
Miwasaki Maru	39	
Miya Maru	81	
Mizuho Maru		
Myojin Maru:		
#3	62	
#7	51	
#12	66	
Nachi Maru #2	35	
Nansatsu Maru #3	149	

Name	G. T.	Remarks
UNKNOWN TYPES—Continued.		
Nanshin Maru:		
#2	37	XPP 803.
#3	37	XPP 817.
#18	85	
#22	88	
#26	81	
#27	83	
#28	83	
#33	86	
#35	86	
#36	81	
#37	81	
#38	80	Changed to auxiliary sail.
Nanshu Maru #2 GO	43	XPP 808.
New Guinea Maru	141	
Nichiei Maru	78	Now Nichiei #1 GO.
Nichiran Maru	32	XPP 815.
Nisshin Maru #1		
Nitto Maru:		
#1	88	
#25	90	
Oda Maru	99	
Oebishu Maru #3	95	
Ojima Maru	79	
Okachi Maru	93	
Palao Maru	35	
Ran Maru	70	
Reiko Maru	88	
Ruson Maru		See Luzon Maru.
Ryosho Maru		See Gyosho Maru.
Ryujin Maru #3	84	
Ryuju Maru #1	131	
Ryusho Maru	99	
Ryuyu Maru #1	131	Auxiliary ketch.
Sakigake Maru #3	94	
Sankoku Maru		
Sanpuku Maru		
Santoku Maru #2	146	
Seiei Maru		
Seiju Maru		
Seiryo Maru	99	
Seishin Maru:		
#3	88	
#3	51	

Name	G. T.	Remarks
UNKNOWN TYPES—Continued.		
Seisho Maru #3	76	
Seishu Maru #5	99	
Seiun Maru	39	
Seiun Maru:		
#5	146	
#8		
Seiyu Maru	98	
Senshu Maru #5	101	
Shinkai Maru #5	98	XPP 506.
Shinko Maru	127	Auxiliary ketch.
Shinko Maru:		
#3	121	
#5		
#6		
#7	55	
#8	120	
#10	72	
Shinsei Maru	148	Auxiliary ketch? Cargo?
Shinsei Maru	99	
Shinshu Maru #5	99	
Shinyo Maru	92	
Shirayige Maru #1	70	
Shoei Maru	152	Auxiliary ketch.
Shoei Maru #7 GO	103	Fishing boat.
Shosei Maru	128	Reported as XPP.
Shosei Maru	88	
Showa Maru #3 GO	71	
Shunsei Maru #5	92	
Suma Maru	118	
Sumiyoshi Maru #8		
Suyama Maru:		
#1	84	
#2	84	
Tadashi Maru	196	
Taiho Maru		
Taika Maru	64	
Taio Maru	96	
Taisei Maru		
Taisei Maru #5	95	
Taisho Maru #2	139	
Taiyo Maru #3		
Takachiho Maru #3	34	
Takao Maru #5	100	
Takashiro Maru	91	
Takushin Maru	89	Reported as lost.
Takuyo Maru #2	74	
Tenjin Maru		

XPP—PICKET BOATS

Name	G. T.	Remarks
UNKNOWN TYPES—Continued.		
Tenjin Maru:		
#2	38	
#2 GO	96	
Tenko Maru:		
#1	72	
#2	72	
Tenyu Maru #1	40	
Teru Maru #5	60	
Tottori Maru	37	
Toyo Maru	---	
Toyo Maru #2 GO	88	
Toyo Maru #9		Reported as XPP-fishing boat.
Toyohama Maru	73	
Tsukinoura Maru #2	98	
Ukui Maru	39	
Usuzu Maru	148	
Wafuu Maru	88	
Yachiyo Maru:		
#3	150	
#5	80	
Yakushi Maru #3	73	
Yamashiro Maru	93	
Yamato Maru:		
#1		
#2	38	
#2	429	Reported as XPP; tonnage seems high.
#3	98	
#5		
Yamaya Maru	80	
Yawata Maru GO	39	Also known as Yawata Maru #2.
Yuko Maru		
Yuku Maru	80	
Yurin Maru	99	
Yutaka Maru		
Zenyo Maru	98	
Zuiho Maru		

ALPHABETICAL INDEX BY SHIP TYPES

Complete lists of Minor Combatant Craft and Utility Vessels are included in the Restricted section of this Supplement

625952°—45——2

EXPLANATORY NOTES

This index is divided into four parts, representing the main ship types: Passenger Vessels, Freighters, Tankers, and Fishing Vessels over 100 GT.

Headings are in most cases self-explanatory, but should be qualified as follows:

–Tonnage is always GROSS, except where otherwise noted.

–Year built indicates the last two digits following 18 or 19—.

–Dimensions in each case are—Length (waterline) x Beam (extreme) x Draft (mean). All figures are given in feet.

–Speed is in knots and represents "cruising" or economical rates. (Both speed and draft are sometimes indicated for loaded (L), or light (E-empty) conditions.

–Propulsion is either diesel motor (M), steam (C-coal), or steam, oil-fired (O/F).

–Construction or Material pertains to wood (W), steel (S), or iron (I) hulls.

–Remarks in almost every case describe the ship as fully as possible, excepting in the instances where illustrations occur in the manual. Official Japanese Transport numbers (e.g.—AK 259) are included whenever known.

PASSENGER SHIPS

Name	Gross tons	Year built	Dimensions (ft.)	Speed (kts.)	Propulsion	Material	Remarks
Agata Maru	302	31	130 x 23		M	S	Machinery aft; XYN.
Ahypyouk	132	39	97 x 23		M	S	British presumed scuttled '42.
Aioi Maru:							
#10	207	21	120 x 20		C	S	
#12	304	22	140 x 20		C	S	
#15 (See Aoi Maru.)							
Akagi Maru	699	88	186 x 27	7	C	S	
Akashi Maru	568	17	134	5	C	W	
Akatuski Maru	444	36	151 x 25		M	S	
Amami Maru	747	08	180 x 27 x 17.5	8.75	C	S	
Amoy Maru	734	06	185 x 28 x 16	10.5	C	S	
Antonia	502	39	157 x 28		M	S	ex-U. S.
Aoi Maru	358	35	131 x 25	12	M	S	Machinery aft; XAM. reported XAK; may be known as Aioi Maru #15.
Aoi Maru	290	24	140 x 21		C	S	
Ariake Maru	167	13	100 x 18		C	S	
Asahi Maru	136	07	115 x 17		C	W	
Ayame Maru	118	33	102 x 18		M	W	
Banyo Maru	138	04	104 x 18		C	W	Sloop.
Benten Maru	231	98	125 x 26		C	S	
Bisan Maru	344	22	130 x 22		C	S	XAM.
Bolinao	247	84	134		C	I	ex-U. S.—schooner.
Carmen	906	38	185 x 31		M	S	ex-U. S.
Chialing Maru	366	27	130 x 24		M	S	ex-British.
Chikubushima Maru	262	25	110 x 24		M	S	
Chitose Maru	246	37	125 x 23	10.5	M	S	XAM.
Chiyo Maru							
#7	132	34	91 x 20		M	W	
#3	126	34	91		M	W	
Choho Maru	326	35	135 x 23 x 11	11.5	C	S	AP–AK 491; sunk, believed salvaged.
Chosui Maru	156	32	95 x 18		M	S	
Choun Maru #1	123	30	95 x 18		M	S	Govt. requis.
Chung On	968	04	175 x 32		C	S	
Daikokuten Maru	648	27	170 x 28 x 14.5(L) 5.5(E)	10	C	S	XYN.
Denko Maru	103	31	108 x 17			W	Paddle.
Densin Maru	281	73	132 x 19	6.5	M	I	
Dos Hermanos	838	82	204 x 26		C	I	ex-U. S.
Ehime Maru	638	03	178 x 25	10	C	S	
Eifuku Maru	756	22	180 x 27 x 15	9	C	S	
Eiho Maru	741	23	183 x 28 x 11.5 (E) 5.2 (E) 15 (L).	3 (L)	C	S	Reported sunk and salvaged.

Name	Gross tons	Year built	Dimensions (ft.)	Speed (kts.)	Propulsion	Material	Remarks
Eiryu Maru	758	28	175 x 27	9	C	S	XYN.
Fubuki Maru	140	07	103 x 19		C	W	
Fuji Maru	231	29	110 x 20		M	S	XAM.
Furin Maru	621	29	148		C	S	Govt. requis.; may be known as Fou Ling Maru.
Governor Wright	496	38	163 l. o. a. x 28		M	S	Attacked by Jap. aircraft; sunk? salvaged?
Hagi Maru	231	29	110 x 20 x 7		M	S	Govt. requis.
Hakuhun Maru	184	14	110 x 19		C	S	
Hakusan Maru	594	03	155 x 24 x 13.5	9	C	S	Reported AK.
Hayataka Maru	836	23	190 x 31.5 x 13	12	C	S	
Hayatomo Maru	697	24	170 x 29	11	M	S	AP-AK.
Hideyoshi Maru	712	78	191 x 27 x 11.5	7	C	I	AK.
Hiro Maru	549	27	170 x 25 x 13.5	10	C	S	XAN-May be known as Hiroshi Maru.
Hizen Maru	946	91	222 x 30 x 16	9	C	S	AK (?)
Hwei Ping	760	95	212 x 28		C	S	Chinese.
Hyakufuku Maru	986	28	200 x 30 x 15 (L)	8	C	S	XPG.
Isabela	179	93	120 x 18.6		C	W	ex-U. S.
Iwami Maru	774	15	188 x 25 x 15.5	8	C	S	
Iyang Maru	943	21	197 x 31	14	C	S	AP-AK,
Jan Carstenz	164	38	113 (o. a.) x 21		M	S	ex-Dutch; machinery aft; believed scuttled '42.
Jinpu	223	29	120 x 20		M	S	Govt. requis.
Jintsu Maru	995	21	210 x 32 x 15 (L)	11.5	C	S	AP-AK; may be known as Shindo Maru.
Joan I	112	13	80		C	S	ex-British.
Kaigo Maru	173	37	110 x 18.5		M	S	Govt. requis.
Kairyu Maru	576	23	155 x 26 x 12.5 (L).	9	C	S	Machinery aft; refrigeration ship.
Kamome Maru	131	26	100 x 18		M	S	
Kannoura Maru	577	07	175 x 23	8	C	S	Sloop; may be known as Kannoura Maru #11; reported sunk and salvaged.
Katsurahama Maru	716	07	186 x 27 x 15.5	10	C	S	AK.
Kimigayo Maru	670	91	176 x 27 x 13	7	C	S	AK.
Kimigayo Maru #2	919		206 x 35 x 10.5	10	C	S	AP-AK.
Kinjo Maru	331	35	135 x 23		M	S	XCM.
Kinryo Maru	130	14	100 x 20		C	S	Govt. requis.
Kinsei Maru	132	02	100 x 18		M	S	
Kiri Maru #1 GO	531	29	160 x 28 x 11.5	11	M	S	XYN; also known as Kiri Maru.

Name	Gross tons	Year built	Dimensions (ft.)	Speed (kts.)	Propulsion	Material	Remarks
Koan Maru	661	13	170 x 25 x 14	9	C	S	AP-AK.
Kochi Maru	303	07	141 x 21		C	S	
Kohan Maru	551	03	171 x 24	8	C	S	
Konahana Maru	179	30	120 x 18		M	S	
Konahana Maru	144	99	113 x 16		M	W	
Kong So	789	15	157 x 27		C	S	ex-British; captured 1941.
Koryo Maru	726	03	187 x 27 x 6 (E) 15.5 (L).	9.5	C	S	May be known as Koryu Maru.
Koshima Maru	187	03	115 x 20		C	S	
Koun Maru #2	606	13	182 x 25 x 7.5 (E). 13.5 (L)	9 (E) 8 (L)	C	S	
Koyo Maru	136	11	114		C	W	Sloop.
Kunsan Maru	735	04	186 x 28 x 14	10	C	S	
Kutubari	237	15	115 x 24		C	S	ex-British.
Kwong Fook Cheung	881	23	169 x 28		C	S	
Kyodo Maru #18	794	08	180 x 28 x 11.5 (E). 12.5 (L)	11.5 (E) 10 (L)	C	S	
Kyojo Maru	372	13	130 x 24	7		S	
Lung Shun	921	90	200 x 29		C	S	
Marushin Maru #2	196	35	109 x 20		M	S	
Masamune Maru	143	10	122 x 16		C	W	
Masayoshi Maru	971	20	194 x 31 x 3.5 (E). 13.5 (L)	10 (E) 9 (L)	C	S	AK.
Megami Maru	174	29	112 x 15		M	S	Govt. requis.
Meshima Maru	336	28	135 x 22		C	S	XAM.
Midori Maru	458	22	150 x 30	11	C	S	AP.
Mihara Maru	697	25	170 x 29	11	M	S	AP-AK.
Miho Maru	515	13	163 x 26 x 14 (L).	9	C	S	AK.
Misaki Maru 2	766	16	180 x 29 x 14.5 (L).	8.5	C	S	AK.
Mishima Maru	138	35	98 x 17		M	S	
Miyako Maru	971	14	190 x 32 x 16.3	10	C	S	AP-AK.
Miyoshima Maru	297	02	141 x 20		C	S	Sloop.
Moppo Maru	739	04	186 x 28 x 14	10	C	S	AP-AK.
Munakata Maru	980	18	210 x 32 x 4.5 (E). 5 (L).	9.5 (E) 8 (L)	C	S	AP-AK.
Mutsu Maru	520	23	160 x 27 x 10	12		S	AP-AK.
Nagaragawa Maru	990	17	190 x 30 x 6.7 (E). 16.5 (L)	8.5 or 10	C	S	AP-AK 129.

PASSENGER SHIPS—Continued

Name	Gross tons	Year built	Dimensions (ft.)	Speed (kts.)	Propulsion	Material	Remarks
Namikiri Maru	589	25	173 x 25	10	C	S	AP-AK.
Nam-Ky	271	98	159 x 23	------	C	S	ex-French.
Nijhama Maru	441	88	166 x 22	------	C	S	
Nikkai Maru	300	05	142 x 20	------	M	S	
Oigawa Maru	575	97	177 x 25	9.5	C	S	
Oita Maru	712	07	187 x 27 x 15	10	C	S	AK 1030.
Okesa Maru	488	32	160 x 27	------	M	S	Govt. requis..
Oki Maru	499	28	150 x 26	------	C	S	
Oki Maru #2	466	36	155 x 26	------	M	S	
Ondo Maru	688	23	170 x 28 x 7.8 (E). 10.5 (L)	12 (E) 11 (L)	M	S	
Oshima Maru	339	29	135 x 22	------	C	S	
Pandai	166	28	105 (l. o. a.)	------	M	S	ex-British.
Perola	150	35	80 (l. o. a.)	------	M	S	ex-Portuguese; machinery aft.
Poeloe Soegei	128	40	94 (l. a.)	------	-----		ex-British.
Rebun Maru	352	23	130 (l. o. a.)	------	C	S	Govt. requis.; may be known as Reibun Maru.
Rejang	288	34	126 (l. o. a.)	------	M	S	ex-British
Rhu	254	40	127 (l. o. a.)	------	M	S	ex-British; believed scuttled, Singapore '42.
Rishiri Maru	140	24	80 x 21	------	C	S	
Ryugu Maru #2	110	34	76 (l. o. a.)	------	M	W	
Ryuhei Maru	726	10	180 (l. o. a.)	9.5	C	S	Govt. requis.
Ryukyu Maru	731	06	185 x 28 x 16	10	C	S	AK.
Ryuzan Maru	417	10	160 x 30	------	C	S	
Sado Maru #2	179	27	110 x 19	------	C	S	Govt. requis.
#8	230	23	113 x 21	------	C	S	Govt. requis.
Sanriku Maru	199	22	111 (S), 107 (BL) x 19.	------	C	W	
Sanriku Maru #2	185	23	111 x 19	------	C	W	
Sansui Maru	812	34	190 x 31	12	M	S	XYN.
Sanyo Maru	976	92	212 x 30 x 17 (L)	9–10	C	S	AK.
Sanyo Maru	545	23	140 x 30 x 16.5	11	C	S	AP.
Sasebo Maru	120	20	90 x 51	------	C	S	Govt. requis.
Satsuki Maru	155	31	96 x 19	------	M	S	
Satsuki Maru	120	33	102 x 18	------	M	W	
Sekiyo Maru	629	16	168 x 27 x 11 (E) 17 (L).	8	C	W	AK.
Senkai Maru #1	197	32	115 (l. o. a.)	------	M	S	
Shiga Maru	742	06	185 x 28 x 16	10	C	S	AP-AK.
Shinei Maru	973	17	196 x 32 x 6 (E) 15.5 (L).	8.5 or 9	-----	S	AK 687.
Shingishu Maru	709	15	177 x 25 x 8 (E) 15 (L).	8	C	S	AK.
Shini Maru	548	99	148 x 28 x 7.3 (E) 14 (L).	8.5 or 9	C	S	AK 271.
Shinkai Maru	145	04	103 (l. o. a.)	------	C	W	
Shintaiko Maru	108	34	93 x 17	------	M	S	
Shintohoku Maru	352	25	125 x 22	------	C	S	XAM in Jan. '41.
Shirogane Maru	929	38	185 x 31 x 10	14	M	S	AP.
Shirogane Maru	123	12	101 x 16	------	C	W	Govt. requis.; also known as Sirokane Maru.
Shisaka Maru							
#1	133	04	96 x 19	------	C	S	
#2	110	05	92 x 19	------	C	S	
Shokai Maru	274	34	130 x 19	------	M	S	Govt. requis.
Shosei Maru	998	29	210 x 31 x 14 (L)	9	C	S	XPG 133.
Shosei Maru	774	28	180 x 27 x 15	10	C	S	XYN.
Shuyo Maru	108	19	104 x 18	------	C	W	Govt. requis.
Soya Maru	692	15	165 x 26 x 14 (L)	9	-----	-----	AP-AK; believed salvaged and recom missioned.
Stanley	479	04	141 x 24.6	------	O/F	S	ex-Chinese.
Subok	148	35	96 x 21.1	------	M	S	ex-British.
Sumire	161	35	110 x 19	------	M	S	
Surigao	797	38	174 x 29.8	------	M	S	ex-U. S.
Suzuya Maru	901	22	190 x 32 x 13 (L)	10	C	S	AP-AK 107.
Tai Ming	649	13	164 x 27	------	C	S	
Taifuku Maru	678	24	175 x 27 x 8 (E) 14.5 (L).	11.5(E) 9.5 (L)	C	S	AK.
Taiko Maru #18	168	36	110 x 19	------	M	W	
Taisan Maru	419	12	160 x 30	------	C	S	Govt. requis.; transport.
Taisho Maru	830	89	195 x 28 x 8 (E) 17 (L).	11.5(E) 9 (L)	C	S	XYN; AK 793.
Taishu Maru	516	32	160 x 26	12	M	S	XAN, AP-AK 559.
Taka Maru	302	35	120 x 23	8	M	S	Machinery aft; may be known as Taika Maru.
Takashima Maru:							
#2	162	33	107 x 20	10	M	S	XAM; AP-AK 493.
#3	162	33	107 x 20	10	M	S	XAM, AP-AK 563.
Tama Maru	801	24	200 x 31 x 14	12	C	S	AP-AK 119.
Tamae Maru	937	17	190 x 31 x 6.5 (E) 16.5 (L).	8 or 9.5	C	S	AK.
Tamamo Maru	209	03	116 x 20	------	C	S	

Name	Gross tons	Year built	Dimensions (ft.)	Speed (kts.)	Propulsion	Material	Remarks
Tandjong Balei	141	27	108 x 19.7		C	S	ex-British; machinery aft.
Tandjong Pinang	133	36	97 x 22		M	S	ex-British; machinery aft.
Tanshu Maru	328	26	140 x 22		C	S	
Taramizu Maru #6	122	35	101 x 18		M	S	May be known as Tarumizu Maru #6.
Tenryugawa Maru	546	97	177 x 25 x 15.5 (L).	10 (E) 8.5 (L) 13 (BL)	C	S	AK.
Tensho Maru	601	26	174 x 26	11	C	S	AP-AK.
Tenyu Maru	735	04	180 x 27 x 8 (E) 15.5 (L)	11 (E) 8 (L)	C	S	#37.
Thumingala	293	39	141 x 28		M	S	ex-British; scuttled?
Tin Yat	942	29	181 x 30			S	ex-British.
Tofuku Maru	112	33	102 x 17		M	S	
Togo Maru	303	23	125 x 22		C	S	XAM.
Tokiwa Maru #1	885	23	190 x 31 x 6.5 (E) 14 (L)	12 (E) 10 (L)	C	S	
Tokushima Maru	407	34	151 x 26 x 25 (L)		M	S	
Tonegawa Maru	574	97	177 x 25	9	C	S	
Toshima Maru	155	33	105 x 19 x 7	10	M	S	
Toyama Maru	913	19	185 x 30 x 5.5 (E) 16 (L)	5.5 (E) 16 (L)	C	S	
Toyo Maru:							
#2	120	11	103 x 17		C	W	
#3	985	25	210 x 32 x 7.5 (E) 16 (L)	13 (E) 11 (L)	C	S	XYN.
#10	162	22	120 x 18		C	S	
#11	196	22	123 x 20		C	S	
#12	197	23	115 x 19 x 20		C	S	
#15	219	25	125 x 20		C	S	
#16	266	33	140 x 21		C	S	
Tsukinada Maru	527	08	169 x 23	9	C	S	Sloop.
Tsuru Maru #1	125	35	68 x 19		M	S	
Tsuru Maru #2	125	35	68 x 19		M	S	
Tsuruha Maru	361	22	130 x 22		C	S	
Urado Maru #2	170	97	98		C	W	
Urakawa Maru	343	15	130 x 22		C	S	Govt. requis.; also known as Uraga Maru.
Urashio Maru	897	90	196 x 30.5	9	C	S	AK.
Usa Maru	843	15	180 x 31 x 16.5	10	C	S	AP-AK.
Usa Maru	176	22	114 x 17 x 6.5		C	W	
Uwajima Maru:							
#13	471	10	159 x 23		C	S	Sloop; govt. requis.
#14	343	12	145 x 21		C	S	Sloop; govt. requis.
#15	824	13	180 x 28	10 or 10.4	C	S	Sloop; AP-AK 27.
#18	885	22	182 x 30 x 15.5	11	C	S	AP-AK 301.
#21	739	04	180 x 28 x 16.5	10.4	C	S	AP-AK.
#22	725	04	180 x 28 x 16.5	10	C	S	AP-AK.
#23	345	35	145 x 22 x 20.5	15	M	S	
#25	744	07	180 x 27 x 15	10.5	C	S	AP-AK.
Wan Yuan	674	39	157 x 29.6		C	S	ex-British.
Yachiyo Maru	271	37	130 x 23		C	S	XAM?
Yaedake Maru	358	99	128 x 25	9	C	S	AP-AK.
Yamamitsu Maru	845	07	210 x 29 x 15.3	11	C	S	
Yasu Maru	111	30	85 x 18		M	S	
Yokosuka Maru #5	107	36	98 x 17		M	W	
Yone Maru:							
#1	154	27	92 x 18		M	S	
#2	154	27	92 x 17.5	7.5	M	S	AP-AK 235.
#3	166	28	92 x 17.5	9.5	M	S	AP-AK 255.
#5	193	33	106 x 19		M	S	AP-AK 629; machinery aft.
Yori Maru #1	151	34	93 x 22		M	W	
Yoshitomo Maru #12	209	34	105 x 21		M	S	
Yuen-Kiang Maru	875	03	195 x 38	8	C	S	AP, sloop.
Yugao Maru	200	87	111 x 18		C	I	

FREIGHTERS

Name	Gross tons	Year built	Dimensions (ft.)	Speed (kts.)	Propulsion	Material	Remarks
A. M. Bisbee	419	02	131 x 24		C	W	ex-Chinese.
Aga Maru	529	21	170 x 33	9		S	
Agustina Maru	296	29	134		M	S	
Akatsuki Maru #10	200						
Alabat	806	29	162 x 34		M	S	ex-U. S. (Philippines).
Alfoer	473	34	156 x 28		M	S	ex-Dutch; machinery aft.
Aloha	238	26	120 x 24		M	S	ex-U. S.; machinery aft.
Ampang	213	25	118 x 23		O/F	S	ex-British.
Anakan	795	38	192 x 29		M	S	Machinery aft; ex-Enidtown.
Angas	247	24	128 x 26		O/F	S	ex-British; machinery aft.

FREIGHTERS—Continued

Name	Gross tons	Year built	Dimensions (ft.)	Speed (kts.)	Propulsion	Material	Remarks
Anjou	504	99	149 x 25	------	C	S	ex-Portuguese.
Annam	259	01	159 x 23	------	C	S	ex-French.
Asahi Maru	986	89	216 x 31	8.9 or 9	C	S	Reported as AK.
Asahi Maru	284	34	120 x 23	------	M	S	Government requisition.
Aso Maru	704	32	170 x 30	11	M	S	Machinery aft; refrigeration machinery; also known as PG or AK.
Atjeh	495	38	158 x 30	------	M	S	ex-Dutch; machinery aft.
Atsu Maru	228	40	98 x 25	------	-----	W	
Atsuta Maru	499	11	179 x 22	8	C	S	
Auby	636	08	202 x 34	------	C	S	ex-British; scuttled, 1942.
Avernus	300	-----	----------	------	-----	-----	ex-British; lighter; captured, 1941.
Ayame—GO	307	90	135 x 28	------	-----	S	
Ajikawa Maru:							
#1	294	08	120 x 26	------	-----	S	
#2	299	08	125 x 26	------	-----	S	
Ban Ho Liong	490	95	154 x 29	------	C	S	ex-Chinese; machinery aft.
Banka	623	14	186	------	C	S	ex-British.
Banshu Maru	992	39	200 x 33	10	M	S	Refrigeration machinery.
Banshu Maru:							
#3	725	34	170 x 30 x 14	9	M	S	AK; may be known as Banshu Maru #88.
#17	460	23	158 x 26 x 10.8	9	O/F	S	
Bassac	214	90	167 x 23	------	C	S	ex-French.
Battambang	668	88	192 x 28	------	C	S	ex-French.
Baynain	659	12	175 x 28	------	C	S	ex-British; see Heinan Maru/661 tons.
Benten Maru	112	35	95 x 18	------	M	S	Government requisition.
Berouw	756	19	184 x 29	------	C	S	ex-Dutch; machinery aft; stranded, 1942.
Beryl	671	20	190 x 28	------	C	S	ex-French.
Bhadana	320	08	135 x 26	------	C	S	Machinery aft.
Bhanurangsi	686	27	200 x 32	13	M	S	
Bicol	367	01	150 x 26	------	C	S	ex-U. S.; ex-Borongan.
Bohol II	249	30	135 x 27	------	M	S	ex-U. S.; reported as ferry.
Borys	243	27	121 x 24	------	C	S	ex-French.
Boto Maru	225	08	112 x 24	------	C	S	
Bujun Maru	801	24	145 x 38 x 20	5	C	S	AC; collier.
Bull	452	07	160 x 26	------	C	S	Siam; machinery aft.
Cambay Prince	455	13	158 x 30	------	C	S	ex-British; machinery aft.
Captain Coppens	206	18	118 x 28	------	M (aux.)	W	ex-U. S.; schooner.
Caroline Maru	320	36	130 x 22	9	M	S	Macbinery aft; government requisition; also reported as Carolina Maru, AK.
Cetus	943	04/31	215 x 31	------	C	S	ex-U. S.; 3-island.
Cheng Chun	252	18	118 x 21	------	-----	W	ex-Chinese.
Cheng Ping	525	20	----------	------	-----	-----	ex-Chinese.
Chiyo Maru	335	36	136 x 24	------	M	S	Machinery aft.
Choan Maru	330	35	135 x 23 x 10.5	------	------	S	XCM; may be known as Choan Maru #2.
Choki Maru	927	39	188 x 31 x 16.9	10	M	S	XYN.
Choko Maru	889	39	187 x 31 x 16.9	10	M	S	XPG.
Chokwa Maru	296	40	162 x 28 x 8	------	M	S	
Choshin Maru	314	35	120 x 23	------	M	S	Government requisition.
Choun Maru:							
#23	213	35	120 x 22	11	M	S	
#24	213	35	120 x 22 x 35	11	M	S	
Chuanchiu	492	92	164 x 23	------	C	S	ex-Chinese.
Chuen Hing	504	37	145 x 28	------	C	Comp.	ex-British.
Churruca	788	78	190 x 26	------	C	I	ex-U. S.
Compania de Filipinas.	785	90	180 x 30	------	C	S	ex-U. S.; 3-island.
Daigen Maru #5	510	35	160 x 28 x 12	10	C	S	Reported sunk, 1936; believed recommissioned.
Daikokuzan Maru	692	11	188 x 26 x 16.5 (L). 5.5(E)	8 or 9	C	S	
Dairyu Maru #2	302	17	129 x 24	------	C	W	
Daishin Maru	300	37	120 x 23	------	M	S	
Don Joao	714	85	192	------	C	I	ex-Portuguese; seized, 1939; ex-Pao Hua (Chinese).

Name	Gross tons	Year built	Dimensions (ft.)	Speed (kts.)	Propulsion	Material	Remarks
Don Juan O.	498	02/28	150 x 25	------	O	S	ex-U. S.
Doun Maru:							
#1	483	13	154 x 29	------	-----	S	Also known as Toun Maru.
#2	482	13	154 x 29	------	-----	S	
#3	477	14	154 x 29	------	-----	S	
#4	471	16	154 x 29	------	-----	S	
#5	493	37	154 x 30	------	-----	S	
Dusit	476	11	160 x 26	------	O	S	Siamese; machinery aft.
Ebisu Maru	490	35	162 x 28	------	M	S	Government requisition.
Eguchi Maru:							
#6	499	37	145 x 28 x 13	10	M	S	
#7	500	38	145 x 28	10	M	S	3-island.
Eisho Maru #7	220	38	115 x 23	------	M	S	Machinery aft.
Ekishin Maru	993	18	208 x 31 x 15.5 (L) 7.7(E)	7.5(L) 8.5(E)	-----	S	
Emilia	278	31	143 x 26	------	M	S	ex-U. S.
Emily	266	89	117 x 15	------	O	W	ex-Dutch.
Enmyo Maru #1	354	18	137 x 26	------	O	W	Also known as Memyo Maru #1.
Ethel Edwards	395	19	144 x 25	------	M	S	ex-U. S.; 3-mast; attacked by Jap planes 1941.
Ewato Maru	------	------	------	------	-----	-----	XYN; see Iwato Maru.
F. Escano	452	11	180 x 27	------	O	Comp.	ex-U. S.
Fook On	738	24	161 x 27	------	M	S	ex-British.
Fortuna	527	23	151 x 27	------	M	S	ex-U. S.; poop-and-bridge plus focsle.
Fu Hai	358	09	124 x 22	------	O	S	ex-Chinese.
Fuku Maru	245	39	95 x 26	------	M	W	
Fuhsing	696	10	172 x 26	------	O	S	ex-Chinese.
Fuji Maru	703	32	170 x 30 x 13	11	M	S	AK; machinery aft.
Fukuei Maru	269	34	120 x 23	------	M	S	
#5	285	34	120 x 23	------	M	S	
#6	285	34	120 x 23	------	M	S	
#7	285	34	120 x 23	9	M	S	XAM.
#8	285	35	120 x 23	9	M	S	AK 283.
#9	617	35	170 x 28 x 13.5	10.5 or 11.	M	S	AK 179; machinery aft.
#10	847	36	185 x 31 x 15.5	9 or 10.7	M	S	XPG-AK.
Fukujin Maru	350	13	130 x 24	------	-----	S	
Fumi Maru	254	35	113 x 26	------	M	W	
Fuso Maru	997	09	218 x 30 x 16	7 or 8.5	C	S	AK.
Fuyo Maru	377	35	130 x 26	------	M	S	Machinery aft.
Gemas	207	25	125 x 23	------	O/F	S	ex-British; scuttled, 1942.
Ginpu Maru #7	344	31	117	------	-----	S	
Giyu Maru	878	38	185 x 30 x 5.2	8.5	M	S	AK.
Gladys	358	10	150 x 25	------	C	S	3-island; ex-British; sunk, 1941; reported as raised.
Goro Maru	301	35	120 x 23	8.5	M	S	Machinery aft; AK 469.
Gouverneur General Van Vollenhoven.	691	09	174 x 29	------	O	S	ex-French.
Governor Taft	249	30	135 x 27	------	M	S	ex-U. S.
Haichang	955	90	220 x 31	------	O	I	Manchurian; see Kaisho GO.
Hainan	270	98	159 x 23	------	O	S	ex-French.
Hakka Maru	889	39	187 x 31 x 15.5	10	M	S	AK 1027; machinery aft.
Hakugin Maru	316	-----	127 x 25	8	M	S	May be known as Shirogane Maru.
Hakugin Maru #2	283	-----	125 x 26	6.5	M	S	Ex-Navy Vessel; may be known as Shirogane Maru #2.
Hakushu Maru #2	251	40	112 x 22	------	M	S	
Hakushu Maru	218	38	131 x 22	------	M	S	
Hakutetsu Maru:							
#1	626	17	180 x 25 x 13.5	7 or 8	O	S	AK.
#3	762	15	182 x 32 x 14	7	O	S	AK; 3-island.
#5	799	33	197 x 29 x 14.5	10	O	S	AK; 3-island; machinery aft.
Hakucho Maru	268	27	131	------	-----	S	
Hakuhun Maru #2	860	36	200 x 30 x 15.5	10 or 11	C	S	AK
Hakuyo Maru	384	35	143 x 23	8.5	-----	S	AK 452.
Hanshin Maru:							
#2	752	04	190 x 30	8.5	-----	S	
#3	752	04	190 x 30	8	O	S	
Hashemi	634	18	175 x 30	-----	C	S	ex-British.
Heiwa Maru	312	36	129 x 24	------	M	S	

FREIGHTERS—Continued

Name	Gross tons	Year built	Dimensions (ft.)	Speed (kts.)	Propulsion	Material	Remarks
Heiyo Maru #1	307	39	115 x 27	------	M	W	
Heiyu Maru	973	18	199 x 32 x 16	8	C	S	AK.
Hidaka Maru #5	228	08	129 x 17	------	C	S	Sloop government requisition.
Hikoshima Maru	977	18	208 x 31 x 16	9 or 7.5	M	S	AK.
Himetaka Maru	554	40	146 x 27	------	M	S	Government requisition.
Hino Maru #2	998	35	200 x 35 x 10	10	M	S	XPG.
Hinoki Maru	599	37	166 x 28 x 14.5	10.5	M	S	XYN.
Hiroshi Maru #3	940	18	190 x 31 x 16.5	10.0 or 8.5	C	S	XYN-AK.
Hirota Maru	479	34	162 x 28	------	M	S	AK 1021.
Hitaka Maru	740	02	188 x 25	9	C	S	Government requisition.
Hiuga Maru	286	30	115 x 21	------	C	S	Government requisition.
Hiyoshi Maru	363	36	135 x 23	------	-----	-----	
Hiyoshi Maru	328	18	111 x 25.5	------	C (aux.)	W	Schooner.
Ho Shun	886	01	216 x 30	10.5	C	S	Manchurian; see Wajun GO.
Ho Yuan	711	05	180 x 27	------	C	S	ex-Chinese; ex-Peiping.
Hock Lee	422	08	135 x 22	------	C	S	ex-Portuguese.
Hoi Nam	777	-----	175 x 29	------	C	W	ex-Chinese; ex-gunboat
Hokoku Maru	279	18	126 x 24	------	C	W	
Hokushin Maru	468	10	149 x 23	10	C	S	AK.
Hokushin Maru	213	22	109	------	-----	S	
Hong Kwong	207	27	115 x 22		C	S	ex-British.
Hoong Chen	555	30	168 x 27		M	S	ex-Chinese; reported in Yangtze River Service.
Hoong Heng	504	29	168 x 27		M	S	ex-Chinese; Yangtze River Service.
Hoong Li	555	30	168 x 27		M	S	ex-Chinese; reported in Yangtze River Service.
Hoong Yuan	479	29	168 x 26		M	S	ex-Chinese; reported in Yangtze River Service.
Horonai Maru	999	18	196 x 31	7.5	C	S	
Houn Maru:							
#3	301	18	114 x 29		M (aux.)	W	Machinery aft; auxiliary schooner.
#5	336	18	122 x 29		M (aux.)	W	Machinery aft; auxiliary schooner.
Hoyo Maru	479	18	140.5 x 28		C	W	Auxiliary schooner.
Hozukawa Maru	339	96	143 x 18.5		C	W	
Hojo Maru	200	33	110 x 20			S	
Hsin Tai	481	1840	169 x 27		C	I	ex-Chinese; see Shintai GO.
Hsin Tseangtah	933	08	210		C	S	ex-British; Yangtze River Service; machinery aft; captured 1941.
Hsing Yangtse	921	27	181		C	S	ex-British; also reported as pilot boat.
Ihei Maru	266	------	128 x 22			S	
Ikuta Maru	485	34	162 x 8		M	S	#1039.
Imizu Maru	986	18	202 x 29 x 16.5 (L)	7.5(L)	C	S	AK.
Imizu Maru	485	11	160 x 29			S	
Inabasan Maru	989	18	190 x 32 x 16.5(L)	10(E)	C	S	
Inushima Maru:							
#1	598	98	169 x 30 x 12(L)	7(L) 9(E)	C	S	AK; sloop; machinery aft.
#2	616	99	164 x 31 x 11.5(L)	9(E) 8	C	S	AK 461; sloop; machinery aft.
#6	586	99	160 x 30 x 11(L)	7(L)	C	S	AK 265; sloop; machinery aft.
Ise Maru	515	19	135 x 33		C	W	Auxiliary barkentine.
Islas Visayas	516	84	166 x 26		C	S	ex-Panamanian; captured 1941.
Isshin Maru	493	11	167 x 22		C	S	
Iwaishima Maru	695	16	170 x 27	8	C	S	AK; ex-Fumi Maru #2.
Iwato Maru	526	39	160 x 27	10	M	S	XYN-AK; may be known as Ewato Maru.
Jade	671	20	181 x 28		C	S	ex-French; ex-Louis Blanchet.
Jai Jerng Kha	482	08	152 x 29		C	S	Siamese.
Janaki	857	22	195 x 33		C	S	ex-British.
Jarak	208	27	127 x 23		O/F	S	Scuttled, 1942.
Jean Dupuis	682	10	180 x 29		C	S	ex-French.
Jeram	210	27	110 x 22		C	S	ex-British; scuttled, 1942.

Name	Gross tons	Year built	Dimensions (ft.)	Speed (kts.)	Propulsion	Material	Remarks
Jerantut	217	27	110 x 22		C	S	ex-British; scuttled, 1942.
Jinko Maru	546	19	166 x 27	8	C	S	Government requisition.
Jo-O Maru	401	04	161 x 21		C	S	
Juho Maru #3	430	28	151 x 23		C	S	Government requisition.
Jui Ping	591	00	160 x 25		C	S	ex-Chinese.
Jun Maru	982	17	202 x 29 x 17(L)	9(L)	C	S	AK
Kadeik	334	19	185		C	S	British paddle; presumed scuttled.
Kagu Maru #2							See Kozan Maru #2.
Kaiko Maru	491	11	200 x 22.5			S	
Kaiko Maru	218	38	92 x 25			S	
Kainan Maru	524	39	199 x 26	14		S	Government requisition; converted to guardship.
Kaio	205	11	110 x 25			S	Government requisition.
Kaio #2	448	02	158 x 22		C	S	
Kaiping	325	17	144 x 20		C	S	ex-French; captured.
Kairyu	231	30	87 x 27			S	
Kaisei	551	19	145.5 x 24		C (aux.)	W	Barkentine.
Kaishu Maru	489	16	162 x 28 x 11		M	S	Machinery aft.
Kaishun Maru	495	35	165 x 27 x 12.5		M	S	Machinery aft.
Kaiten Maru	276		128		C	S	
Kaiun Maru #1	261	37	102 x 24			W	
Kaiyo Maru	248	99	128 x 22			S	
Kaikinoura Maru	838	29	150 x 33	5	M	S	Machinery aft.
Kako Maru #3	311	39	125 x 23		M	S	
Kakuwa Maru #21	200	22	122 x 21 x 9.5		C	W	
Kaladan	330	18	185				ex-British; presumed scuttled.
Kami Maru	199	34	100 x 22		M	S	#247.
Kamikaze Maru #2	382	38	124 x 28		M	W	
Kamo Maru	231	20	122 x 20 x 10		C	W	
Kamokawa Maru	411	89	156		C	I/S	
Kampar	574	30	135 x 29		M	S	ex-Dutch; machinery aft.
Kanesugi Maru #3	225	39	98 x 25		M	W	

Name	Gross tons	Year built	Dimensions (ft.)	Speed (kts.)	Propulsion	Material	Remarks
Kanko Maru	909	40	185 x 31 x 15.5	10 or 9		S	AK
Kanlaon II	477	31	176 x 30		M	S	ex-U. S.
Kannan Maru	378	05	144 x 21 x 15.8		C	S	Sloop.
Kansai Maru #1	482	12	170 x 22	8	C	S	
Kanto Maru	218	37	120 x 22	10		S	
Kashi Maru	654	40	171 x 28 x 14	9 or 10	M	S	AK; machinery aft.
Kashii Maru	486	82	169 x 26 x 11		C	I	
Kashima Maru	879	38	185 x 31	10	M	S	
Kashiwa Maru	972	18	190 x 31	8	C	S	
Kashiwa Maru	222	24	140 x 26		C	S	Government requisition.
Katipunan	208	73	130 x 22		M	I	ex-U. S.
Katsura Maru	540	38	160 x 28 x 12.9	10.5 or 10	M	S	Reported as #621-XYN; machinery aft;
Katsuyama Maru	387	40	132 x 24		M	S	Government requisition.
Kazusa Maru	269	27	150 x 28			S	
Kajo Maru	383	25	130 x 22		C	S	Government requisition.
Keihan Maru	342	28	160 x 25			S	
Keishin Maru	369	95	139 x 23			W	
Kenzan Maru	950	38	206 x 30 x 15.3	9 or 11	C	S	XPG.
Khmer	313	04	159 x 23		C	S	ex-French.
Kiang Chung	513	17	174 x 24		C	S	ex-Chinese.
Kiangting	423	25			O/F	S	ex-German.
Kidoel	775	27	189 x 33		C	S	ex-Dutch; 3-island.
Kiku Maru	415	32	145 x 26	10	M	S	AK 771; machinery aft.
Kiku Maru	283	34	120 x 23		M	S	
Kiku Maru	271	19	118 x 24		C	W	
Kim Kean Aun	311	29	110 x 30		M	W	ex-British; schooner.
King On	677	18	151 x 31		C	S	ex-Portuguese.
Kinshu Maru	239	40	105 x 26		C	S	
Kintang	435	25	149 x 27		O/F	S	ex-British; captured, 1941.
Kinzan Maru	295	35	120 x 24		M	S	Government requisition.

FREIGHTERS—Continued

Name	Gross tons	Year built	Dimensions (ft.)	Speed (kts.)	Propulsion	Material	Remarks
Kiri Maru	415	32	145 x 26		M	S	Government requisition; machinery aft.
Kiri Maru	324	35	130 x 23		M	S	Government requisition; machinery aft.
Kiri Maru:							
#2	333	35	130 x 23		M	S	AK 1012; machinery aft.
#3	495	36	166 x 26		M	S	Government requisition.
#5	335	37	136 x 23		M	S	XAM.
#8	939	37	206 x 30 x 15	11.5	M	S	AK; machinery aft.
Kisaragi Maru	495	35	165 x 27 x 12.5		M	S	Machinery aft.
Kiso Maru	703	32	170 x 30 x 13	11	M	S	AK-XPG; refrigeration machinery; machinery aft.
Kiso Maru	554	39	158 x 28 x 12	8	M	S	AK 269; machinery aft.
Kisogawa Maru	367	87	140 x 28			I	
Klias	207	27	126 x 23		C	S	ex-British; scuttled, 1942.
Koa Maru:							
#2	351	39	120 x 28		M	S	XYN.
#3	376	39	120 x 27		M	S	Government requisition.
Koa Maru #2 GO	572						XYN.
Koan Maru	199	38	98 x 24		M	W	
Koei Maru	200	37	108 x 20		M	W	
Kofuku Maru	753	19	180 x 27.5 x 14.5	8	C	S	AK.
Kofuku Maru #2	969	18	190 x 31 x 16.5	8	C	S	AK.
Kogi Maru	857	40	185 x 31 x 15.5	11	M	S	Reported as XYN-XAM.
Kokai Maru	540	39	160 x 27.6	11 or 10.5	M	S	XYN; machinery aft.
Kokko Maru	199	34	97 x 24		M	W	Schooner.
Kokoku Maru	544	40	160 x 28 x 13	11.5 or 10			AK 1005; may be known as Kokku Maru.
Kokuko Maru	716	38	170 x 28 x 13.5	9.5	M	S	XYN; may be known as Kokko Maru.
Kokwa Maru	296	40	162 x 28		C	S	
Kolambugan	690	29	181 x 30		M	S	ex-U. S.; machinery aft.
Konan Maru	994	18	190 x 31.5 x 5.0(E) 16.5 (L).		C	S	May be known as Konan Maru #11; government requisition.
Kongo Maru	270	34	120 x 23		M	S	
Kongo Maru	268	11	121 x 25			S	
Konin Maru	250	91	118 x 20		C	S	
Korei Maru	540	39	160 x 28 x 13 (L)	11 (L) 14 (E)	M	S	XYN.
Koryu Maru	623	40	167 x 27	10.5		S	Transport; government requisition.
Kosan Maru	277	34	120 x 23	9	M	S	XAM.
Kosei Maru	864	39	185 x 31 x 6.0 (E) 15.5 (L)	12.5(E) 11 (L)	M	S	Government requisition.
Kosei Maru	234	40	96.5 x 24.5		M	W	
Kosho Maru	330	39	130 x 24		M	S	Government requisition.
Koshu Maru	226	34	110 x 20			S	
Koshu Maru #1	279	39	120 x 23	10	M	S	
Kotobuki Maru	200	39	95.5 x 25.5		M	W	
Kotobuki Maru:							
#2	326	35	125 x 23		M	S	Government requisition.
#5	720	39	180 x 28 x 6.5 (E) 14.3 (L).	7	C	S	XYN.
Koun Maru	753	18	187 x 31.5	10		W	
Koun Maru	217	39	96 x 25		M	W	
Kow Chow	310	09	155		C	S	ex-British; presumed scuttled.
Kozan Maru #2	864	19	194 x 29 x 12.3(E) 20 (L)	9 (E) 8 (L)	C	W	May be known as Kagu Maru #2.
Kojo Maru	370	13	130 x 24	7.5		S	
Koju Maru	331	17	114 x 25		C (aux.)	W	Schooner.
Koju Maru #6	369	19	129 x 28		C aux.)	W	Schooner.
Kuang Hsiang	653	12	147 x 27		C	S	ex-Chinese; captured previous to March 1939 and renamed Nantung Maru.
Kudamatsu Maru	295	36	125 x 22	9.5	M	S	Government requisition.
Kureha Maru #3	416	36	130 x 26	9		S	Government requisition.
Kurogane Maru	988	26	210 x 30 x 7 (E). 16 (L)	12(E) 9.5 (L)			Machinery aft; 3-island; government requisition.

Name	Gross tons	Year built	Dimensions (ft.)	Speed (kts.)	Propulsion	Material	Remarks
Kwong Foon	611	22	154 x 26	------	M	S	ex-Chinese.
Kwong Ying	685	14	151 x 28	------	C	S	ex-Chinese.
Kyodo Maru #11	372	09	141 x 21	------	C	S	
Kyojin Maru:							
#1	425	37	135 x 26	------	M	S	May be known as Keijin Maru #1; government requisition.
#2	433	37	135 x 26	------	M	S	May be known as Keijin Maru #2; XAM.
#3	433	37	135 x 26	------	M	S	May be known as Keijin Maru #3; XAM.
#5	433	37	135 x 26 x 3.5	------	M	S	May be known as Keijin Maru #5; XAM.
#8	266	40	98 x 25	------	M	W	
Kyokuto Maru	361	17	127 x 27 x 13.6	------	C (aux.)	W	3-mast auxiliary schooner.
Kyosei Maru	556	38	150 x 28 x 5.0 (E) 12.5 (L)	10.5 (E) 8.5 (L)	M	S	Machinery aft; government requisition.
Kyowa Maru	388	18	85 x 22 x 10.5	------	-----	S	Reported as inactive.
Kyushu Maru	632	36	170 x 28 x 6.5 (E) 14 (L)	11 (E) 9 (L)	C	S	Machinery aft.
La Estrella Caltex	495	31	145 x 28	------	M	S	ex-U. S.; machinery aft.
Lai Hsing	573	01	172 x 26	------	C	S	ex-Chinese.
Lake Cask	349	28	157 x 28	------	M	W	ex-British.
Leyte	854	79	210 x 29	------	C	I	ex-U. S.; machinery aft.
Li Wo	707	38	164 x 30	------	C	S	ex-British; Yangtze River Service; deep tanks.
Ling Kong	850	23	180 x 34	------	C	S	ex-British; also reported as pilot boat.
Lu Kiang	416	08	137 x 22	------	C	S	ex-Chinese.
Majang	536	28	165 x 29	------	O/F	S	ex-Dutch; machinery aft; attacked by Japanese, 1942.
Makasser	537	28	165 x 29	------	-----	-----	ex-Dutch; machinery aft; attacked by Japanese, 1942.
Makian	537	28	165 x 29	------	M	S	ex-Dutch; machinery aft.
Malacca	210	27	110 x 22	------	C	S	ex-British; damaged and scuttled, 1942.
Mampawa	468	28	165 x 29	------	M	S	ex-Dutch; machinery aft.
Man Hing	839	19	163 x 31	------	M	W	ex-Portuguese.
Manapia	248	31	126	------	M	S	ex-U. S.
Manda Maru	212	00	124 x 24	------	C	S	Sloop; government requisition.
Mandar	536	29	165 x 29	------	M	S	ex-Dutch; machinery aft.
Manipi	536	29	165 x 29	------	M	S	ex-Dutch; machinery aft.
Mapia	550	29	165 x 29	15	M	S	ex-Dutch; machinery aft; attacked by Japanese, 1942; reported raised and recommissioned.
Margaret	248	29	110 x 25	------	M	S	ex-British; machinery aft.
Maros	550	29	165 x 29	------	M	S	ex-Dutch; machinery aft; scuttled, 1942.
Masbate	742	95	180 x 28	------	C	S	ex-Panamanian, operating under Portuguese flag.
Matsu Maru	683	28	176 x 27 x 14.5 (L).	10 (E)	C	S	AK 167; machinery aft.
Matsu Maru	415	32	145 x 26	------	M	S	Machinery aft.
Matsu Maru	217	23	140 x 26	------	C	S	
Matsu-Ura Maru	228	22	120 x 18	------	C	S	
Matsuyama Maru	423	12	149 x 22 x 14	9	C	S	AK.
Mekong	746	94	210 x 28	------	C	S	ex-French.
Mercedes	238	18	115 x 26 x 10.8	------	M (aux.)	W	ex-U. S. schooner.
Merkus	865	37	188 x 33	------	M	S	ex-Dutch; machinery aft; 3-island.
Mikado Maru	398	40	131 x 24	------	M	S	AK 1024.
Mikage Maru #2	617	35	170 x 28 x 13.5 (L).	12 (E)	M	S	AK 169.
Milo	322	19	136 x 25	------	M	S	ex-Dutch; machinery aft; scuttled, 1942.
Ming Tsu	939	28	-----	------	S	M	ex-Chinese; Yangtze River Service.

Name	Gross tons	Year built	Dimensions (ft.)	Speed (kts.)	Propulsion	Material	Remarks
Minjak	966	37	204 x 34		M	S	ex-Dutch; 3-island; scuttled, 1942.
Mishima Maru	235	32	115 x 22		C	S	Government requisition.
Mito Maru	327	34	119	8	M	S	Government requisition.
Mitsu Maru #3	404	37	140 x 24			S	AK 1036.
Mitsumine Maru	996	18	194 x 31 x 16 (L)	8.5(L)	C	S	AK.
Miyakawa Maru	200	40	91 x 25.5		M	W	
Miyo Maru	335	37	136 x 23		M	S	XAM; may be known as Midai Maru.
Momo Maru	443	35	149 x 26	9	M	S	AK 203.
Motoyama Maru #1	371	36	130 x 24	8	M	S	AK 229; may be known as Genzan Maru #1.
Munakata Maru	394	93	154 x 21		M	S	AK 1010.
Muneyoshi Maru	326	17	123 x 26		C (aux.)	W	3-mast schooner.
Musashino Maru	311	35	136 x 27		M	S	Machinery aft; may be known as Shoun Maru.
Mutsu-Ura Maru	467	18	138 x 29		M (aux.)	W	3-mast schooner.
Naga	624	29	155 x 35		M	S	ex-U. S.; #2205; machinery aft.
Nagara Maru	856	40	185 x 31 x 15.5 (L) 6.2 (E)	11	M	S	XYN or AK.
Nagata Maru	479	34	162 x 28		M	S	
Nanka Maru	238	24	125 x 26			S	
Nanning	569	00	147 x 31		C	S	ex-Chinese; paddle.
Nantaku Maru	330	32	130 x 23	11	M	S	XAK.
Nanzan Maru	462	10	161 x 31		C	S	
Naris	799	29	166 x 35		O/F	S	Siamese.
Nibha	512	24	175 x 29		M	S	Siamese.
Nichesen Maru #5	432	39	136 x 26			S	
Nilla	208	08	123 x 23		C	S	ex-British.
Ninghsiang	359	03	147 x 21		C	W	ex-Chinese; sloop.
Nissen Maru	299	35	120 x 23.5		M	S	
Nissen Maru:							
#2	410	38	136 x 24		M	S	Machinery aft.
#3	412	38	136 x 24		M	S	
#5	432	39	136 x 24	10.5		S	AK 251.
Nisshin Maru:							
#1	267	29	125 x 23		M	S	
#2	349	30	140 x 24			S	
Nissho Maru:							
#2	344	04	146 x 22		C	S	
#3	676	28	180 x 27 x 14.5 (L) 6.0 (E)	9.5	C	S	XYN-AK.
#5	782	35	181 x 31 x 14.5 (L) 9.0 (E)	9	M	S	XYN-AK.
#6	642	90	185 x 30 x 14.5 (L) 6.5 (E)	8.5	C	S	AK.
#11	317	18	114 x 25		C (aux.)	W	Schooner.
#15	375	38	140 x 24		M	W/S	AK 1033.
Niticho Maru	549	21	160 x 26 x 14 (L) 8 (E)	9	C	S	May be known as Niticho Maru.
Nitiki Maru	309	40	121 x 23		M	S	Government requisition.
Nitto Maru	471	14	150 x 22 x 14.5		C	S	
Nuestra Senora De La Paz	247	25	126 x 24		O/F	S	ex-U. S.
Nuestra Senora Del Rosario	430	29	168 x 28		O/F	S	ex-U. S.
Nyounghla	382	09	160 x 31		C	S	Machinery aft; scuttled, 1942.
Ogi Maru	200	34	112 x 21	9	M	S	AK 153.
Oha Maru	990	28	220 x 34 x 15 (L) 6 (E)	9	O/F	S	AK.
Oi Maru	396	39	142 x 25		M	S	XAM; machinery aft.
Okimi Maru	200	40	95 x 25.5		M	W	
Okinoyama Maru	984	17	199 x 31 x 13.2 (L) 6.6 (E)	8 (L) 9 (E)	C	S	AK 657.
Oshima Maru	970	35	217 x 34 x 12.7 (L) 5.2 (E)	7	M	S	Machinery aft.
Otome Maru	199	38	99 x 25		M	S/W.	
Owada Maru	395	09	140			S	
P. Aboitiz	321	28	134 x 27		M	S	ex-U. S.
Pakpanang	310	35	141 x 27	12.5	M	S	Siamese; machinery aft.
Palawan	562	27	171 x 29		M	S	ex-U. S.; machinery aft.
Paloh	452	20	157 x 30		M	S	ex-Dutch; machinery aft; 3-masted; scuttled, 1942.
Pathfinder	258	31	105 x 23		C	S	ex-British.
Paz II	237	26	120		M	S	ex-U. S.; machinery aft.
Pei Ching	441	11	135 x 24		C	S	ex-Chinese.
Pei Hai	749	90	200 x 30		C	S	ex-Chinese.
Pei Ming	667	22	152 x 27		C	S	ex-Chinese.

Name	Gross tons	Year built	Dimensions (ft.)	Speed (kts.)	Propulsion	Material	Remarks
Pelikan	781	94	194 x 32		C	S	ex-German.
Perla	346	03	125 x 26		C	S	ex-U. S.
Phouc Kien	318	81	136 x 20		C	I	ex-French.
Poseidon	696	14	185 x 30		M	S	ex-Dutch; machinery aft.
Prachatipok	968	09	201 x 30		C	S	Siamese.
Princesa	409	30	154 x 28		M	S	ex-U. S.
Princess of Cebu	415	31	155 x 30		M	S	ex-U. S.
Princess of Negros	522	33	184 x 31		M	S	ex-U. S.; captured by Japanese, 1942.
Pulau Kidjang	229	36	114 x 26		M	S	ex-British.
Rahman	209	26	125 x 23		O/F	S	ex-British; reported sunk, 1942.
Rasa	217	33	117 x 23		M	S	ex-British; carries palm oil in bulk.
Redang	531	01	165 x 27		O/F	S	Siamese; machinery aft.
Relau	223	38	120 x 25		M	S	ex-British; machinery aft.
Rengat	512	25	164 x 30		C	S	ex-Dutch.
Reteh	513	26	164 x 30		C	S	ex-Dutch.
Rimau	214	35	118 x 24		M	S	ex-British; machinery aft; carries palm oil in bulk; captured by Japanese, 1942.
Rizal	576	30	171 x 29		M	S	ex-U. S.
Robert O.	279	31	129		M	S	ex-U. S.
Rokan	563	29	165 x 29		M	S	ex-Dutch; machinery aft.
Rose Blanche	323	24	138 x 20	13	C	S	ex-French.
Ryoyu Maru:							
#16							See Yoshitomo Maru #16.
#21							See Yoshitomo Maru #21.
#22							See Yoshitomo Maru #22.
#23							See Yoshitomo Maru #23.
#26							See Yoshitomo Maru #26.
#27							See Yoshitomo Maru #27.
Ryuge Maru	457	18	151			W	
Saidaing	266	19	135 x 24		C	S	ex-British; launch; scuttled, 1942.
Sai On	445	98	146 x 27		C	S	Machinery aft.
Saiko Maru	279	29	130 x 26		C	S	
Sainam	588	00	147 x 31		C	S	ex-Chinese; paddle.
Sakae Maru	540	38	150 x 27	12	M	S	Machinery aft.
Sakaye Maru #7	267	37	97 x 25		M	W	May be known as Sakae Maru #7.
Sakigake Maru #2	237	12	114 x 22		C	S	Government requisition.
Sakki Maru							See Satsuki Maru.
Sakura Maru	233	28	105 x 25		C	S	
San Carlos	221	31	135 x 26		M (aux.)	S	ex-U. S. sailing vessel; twin screw.
San Ning	776	16	163 x 28				ex-Chinese.
San Peh	700	30					ex-Chinese; Yangtze River Service.
Sanko Maru	636	19	160 x 29 x 13 (L)	8		S	Machinery aft.
Sanshin Maru	209	12	110 x 22		S		
Santa Terisita	222	30	120 x 24		M	S	ex-U. S.; machinery aft.
Sanwa Maru	547	34	155 x 28 x 12.5 (L).	8	M	S	AK 1026.
Sanyu Maru	531	34	155 x 28	8 or 10 (L)	M	S	AK 531; machinery aft.
Sanzan Maru	417	10	160 x 30		C or O/F	S	
Sapataya Maru	369	22	148 x 25		C	W	Siamese.
Satsuki Maru	354	35	130 x 26 x 11	14	M	S	Machinery aft; may be known as Sakki Maru; government requisition.
Sawba Maru	415	37	200		C	S	ex-British; paddle; presumed scuttled.
Scot I	274	06	148 (oa) x 25		C	S	ex-British.
Scott Harley	620	13	185 x 31		C	S	ex-British.
Sehun Maru	367	07	146		S	C	May be known as Sen-Un Maru.
Seiha Maru	254	13	125		M	W	Schooner.
Seikai Maru	216	36	110 x 21		M	W or S	
Seiko Maru	708	38	170 x 28 x 13.5 (L)	10	M	S	XYN.
Seiko Maru	370	17	142 x 23		C	W	
Seiko Maru	242	35	117 x 21 x 11	10 or 8	M	S	
Seiwa Maru #2	593	09 or 99	169 x 30 x 12.5 (L) 6.5 (E)	7 (L) 8.5 (E)	C	S	Machinery aft.
Seizan Maru	955	18	190 x 31 x 16 (L) 7.5 (E).	10			AK.
Sekino Maru	998	18	195 x 32 x 16 (L) 5 (E).	10 (E)	C	S	

Name	Gross tons	Year built	Dimensions (ft.)	Speed (kts.)	Propulsion	Material	Remarks
Senyu Maru:							
#2	301	34	120 x 23		M	S	XAM.
#3	327	36	120 x 23	16	M	S	XAM; machinery aft.
#5	370	37	125 x 24	16	M	S	#1034.
Sesshu Maru	406	27	132 x 22		C	S	
Shing Cheong	847	15	169 x 30		C	I	
Shou Chong	622	25			C	S	Chinese.
Shrivati Maru	389	21	133 x 25		M	S	ex-British; machinery aft.
Shwelan	438	17	232		C	S S	ex-British; paddle; presumed scuttled.
Shwemyo	460	22	233		C	S	ex-British; paddle; presumed scuttled.
Shigehisa Maru #1	208	37	119 x 18		M	S	
Shigenobugawa Maru	496	18	138 x 30		M (aux.)	W	3-mast schooner.
Shimohusa Maru	269	27	150 x 28			S	May be known as Shimoosa Maru.
Shimoosa Maru							
Shinchiku Maru	499	01	141 x 33			S	
Shine Maru	408	06	143 x 20		C	S	
Shinei Maru #3	958	18	196 x 31 x 16 (L) 4.9 (E)	8	C	S	AK.
Shingu Maru	200	39	98 x 24		M	W	Machinery aft; cutter; ex-Houn Maru; may be known as Atatsuki Maru.
Shingyo Maru	528	90	161 x 27 x 13		C	I	
Shinho Maru							See Shinpo Maru #8.
Shinko Maru #1 GO	934	38	205 x 30 x 15.5(L) 5.3 (E)	10 (L) 12.5(E)	M	S	XPG 144.
Shinko Maru #2	353	18	123 x 26		C (aux.)	W	Schooner.
Shinkochi Maru	213	19	114 x 19			W	
Shinkochi Maru:							
#2	260	39	120 x 20		C	W	
#3	353	18	129 x 24		C	W	ex-Juho Maru #2.
Shinpo Maru	295	36	125 x 22		M	S	XAM; transport.
Shinpo Maru #8	220	39	98 x 24		M	W	May be known as Shinho Maru.
Shinrei Maru	987	18	190 x 31 x 16 (L) 6.5 (E)	9.5 (E)	C	S	AK.
Shinryu Maru	482	96	169 x 23	8	C	I	Ketch.
Shinsei Maru	313	34	130 x 24	10.5	M	S	AK 529; machinery aft.
Shinto Maru:							
#2	540	38	160 x 28 x 12.9 (L)	10.5	M	S	XYN; machinery aft.
#3	557	38	150 x 28 x 12.9 (L)	10		S	AK.
Shinwa Maru #3	288	39	121 x 23		M	S	Government requisition.
Shirogane Maru #2	237	39	98 x 25		M	W	
Shirogane Maru:							
#2							See Hakugin Maru #2.
#3	236	39	98 x 25		M	W	
#12	323	37	112 x 25		M	W	Ex-Kaiun Maru #2; may be lost.
Shofuku Maru	680	16	181 x 30 x 11	8	C	W	AK.
Shofuku Maru #2	729	37	183 x 29 x 14.9	9	C	S	AK.
Shokiku Maru	463	13	163 or 114 x 23	9	C	S	
Shokyu Maru	417	12	155 x 22 x 11		C	S	Government requisition.
Shoten Maru #2	296	40	109 x 27		M	W	May be known as Shoten Maru.
Shotoku Maru	284	34	120 x 23		M	S	
Shuko Maru	889	40	185 x 31 x 15.5 (L).	10 (L)		S	
Shoun Maru #6	287	36	125 x 22		M	S	
Shoya Maru							See Ushio Maru.
Shunsen Maru	971	20	194 x 31 x 16.5 (L).	9	C	S	3-island; may be known as Harukawa Maru; XYN.
Shunyo Maru #2	664	18	171 x 28 x 15.5 (L).	7	C	W	AK.
Shunzan Maru #2	608	34	163 x 28 x 13.5 (L).	9.5 (L)	M	S	AK.
Singkel	615	18	185 x 31		C	S	ex-Dutch.
Sin Kheng Seng	200	27	110 x 22		O/F	S	ex-British.
Siushan	296	26	121 x 23		M	S	ex-British.
Sobiraki Maru:							
#8	226	39	113 x 24		M	W	
#12	230	40	113 x 24		M	W	
Soko Maru	328		159 x 28		M (aux.)	W	Wood aux.
Soochow	310	09	155		C	S	ex-British; presumed scuttled.
Soshin Maru	202	04	110		C	W	Sloop.
Storm Waif	207	20	118 x 24		M	W	ex-British.
Sugi Maru	443	35	149 x 27	9.5	M	S	AK-145.
Sugi Maru	195	28	130 x 24		C	S	
Suiting	295	26	121		M	S	
Sumida Maru	546	38	150 x 27 x 12.9 (L).	10	M	S	AK 1209.
Sumiyoshi Maru	481	35	162 x 28		M	S	AK 1019.

Name	Gross tons	Year built	Dimensions (ft.)	Speed (kts.)	Propulsion	Material	Remarks
Tachibana Maru	392	23	145 x 24	------	C	S	
Tai Pat	261	14	105 x 20	------	C	S	ex-British; may be known as Tai Pat #8.
Taihei Maru	602	17	144 x 34	------	M (aux.)	S	4-mast barkentine; government requisition.
Taiko Maru #1	493	91	174 x 22	------	C	I	
Taimei Maru	989	18	190 x 31 x 16 (L).	8 (L) 9 (E)	C	S	AK 371.
Taisei Maru	407	40	132 x 28.5	------	M	W	
Taisei Maru	228	32	120 x 21	------	M	S	XAM.
Taisho Maru #1	605	17	173 x 26 x 14.9 (L). 8.5 (E)	8.5(L) 9 (E)	C	W	
Taito Maru	267	32	130 x 23 x 10	8 or 9.5	M	S	XAM.
Taiun Maru:							
#2	998	11	210 x 30 x 16 (L). 6.5 (E)	8 (L) 9 (E)	C	S	AK; may be known as Daiun Maru #2.
#6	601	12	167 x 27 x 13 (L). 5.3 (E)	9 (E)	C	S	AK; sloop; may be known as Daiun Maru #6.
Takachiho Maru	343	37	130 x 23 x 12	9	M	S	XAM-AK
Takashima Maru	494	30	150 x 27	9	C	S	Machinery aft.
Takashima Maru:							
#5	285	34	120 x 23	8	M	S	AK 593.
#6	285	35	120 x 23	------	M	S	Government requisition.
Takatori Maru	278	34	120 x 23 x 11.5	8	M	S	AK 495.
Takunan Maru	751	39	177 x 28	10	M	S	AK; machinery aft; transport; government requisition.
Talifoo	973	14	260	------	C	S	ex-British; paddle; presumed scuttled.
Tama Maru	397	39	145 x 25	------	M	S	XAM; machinery aft; government requisition.
Tamagawa Maru	686	18	179 x 29	6	-----	W	AK.
Tamanami Maru	282	99	130 x 28	------	-----	S	
Tango Maru #2	409	17	143 x 24	------	CW		ex-Heian Maru #9.
Tapah	208	26	126 x 23	------	O/F	S	ex-British.
Taping	597	07	253	------	C	S	ex-British; paddle; presumed scuttled.
Tarumi Maru	729	21	177 x 29 x 14.5 (L). 9.9 (E)	9 (L) 10.5 (E)	C	S	XAK.

Name	Gross tons	Year built	Dimensions (ft.)	Speed (kts.)	Propulsion	Material	Remarks
Tatsu Maru	501	39	144 x 28 x 12.5 (L). 5.0 (E)	9 (L) 5 (E)	M	S	XYN-AK.
Tatsu Maru	305	34	120 x 23 x 11.5	------	M	S	
Tavoy	240	20	109 x 27	------	M	W	ex-British schooner.
Teh Chun	407	94	165 x 20	------	C	S	ex-Chinese sloop.
Teli	697	90	176 x 27	------	C	S	ex-Chinese.
Tennyo Maru	495	30	160 x 27	------	M	S	
Tenryu Maru	555	39	153 x 28 x 12 (L). 6.3 (E)	9 (L)	M	S	AK 1015; machinery aft.
Tenshin Maru	256	38	127 x 23	------	M	S	
Tenshin Maru	206	34	110	------	M (aux.)	S	Schooner; government requisition.
Tidore	872	29	189 x 34	------	M	S	ex-Dutch; machinery aft; attacked by Japanese, 1942.
Tin Sang	398	04	130 x 24	------	C	S	ex-British.
Tinley	420	-----	138	------	C	Comp.	ex-British; lighter?
Tiong	243	23	120	------	O/F	S	ex-British; machinery aft.
Tobelo	983	29	203 x 34	------	M	S	ex-Dutch; machinery aft; attacked by Japanese, 1942.
Toboali	984	29	203 x 34	------	M	S	ex-Dutch; machinery aft; attacked by Japanese, 1942; probably salvaged.
Toei Maru	626	18	176 x 29	7	C	W	
Togian	979	30	203 x 34	------	M	S	ex-Dutch; attacked by Japanese submarine, 1942.
Tohiti	982	29	203 x 34	------	M	S	ex-Dutch; machinery aft.
Toho Maru #5	210	40	98 x 25.5	------	M	W	
Tokai Maru	300	39	130 x 24	------	M	S	Machinery aft.
Tokai Maru #3	431	01	150	------			
Tokihime Maru	741	35	180 x 38 x 13.5 (L) 6.0 (E).	10	C	S	Machinery aft.
Tokiwa Maru	226	18	102 x 23		M	W	
Toko Maru #1 GO	722	38	170 x 28.6 x 13.5 (L). 6.0 (E)	10 (L) 11 (E)	M	S	XYN; may be known as Toko Maru #1.
Tokuho Maru:							
#6	266	34	96 x 24	------	M (aux.)	S	Schooner.

FREIGHTERS—Continued

Name	Gross tons	Year built	Dimensions (ft.)	Speed (kts.)	Propulsion	Material	Remarks
Tokuho Maru—Con.							
#7	267	34	97.6 x 24		M (aux.)	S	Schooner.
#10	353	35	125 x 24	8.5	M	S	Government requisition.
Tokushun Maru #1	251	09	130 x 27			S	
Tokuyama Maru	297	30	130 x 24		M	S	Machinery aft.
Tomori	983	29	203 x 34		M	S	ex-Dutch; machinery aft; scuttled, 1942.
Tone Maru	538	39	150 x 28 x 12.5 (L). 5.3 (E)	10.5 (E) 10 (L)	M	S	Government requisition.
Tora Maru #1	428	36	150 x 28	13	M	S	Machinery aft.
Toradja	981		203 x 34		M	S	ex-Dutch; machinery aft.
Torai Maru	643	22	175 x 28 x 14.5 (L). 7.5 (E)	10 (L) 11 (E)	C	S	3-island; government requisition.
Tosei Maru:							
#1	543	40	150 x 39		M	S	Government requisition.
#3	360	36	135 x 23			S	Government requisition.
Toshin Maru	200	36	105 x 21	8.5	M	S	Machinery aft.
Toshun Maru	273	13	132 x 22		C	S	Government requisition.
Toyo Maru	334	36	136 x 22		M	S	
Toyo Maru #1	409	39	137 x 24		M	S	
Trang	205	12	111 x 22		C	S	ex-British.
Tsenglee	961	18	190 x 31		C	S	ex-Chinese.
Tsing Fat	329	21	120 x 22		C	S	ex-Chinese.
Tso-Kwang	311	27	145		M	S	Barge.
Tsubaki GO	526	00				S	
Tsukushi Maru #3	999	27	225 x 33.5	9	C	S	Machinery aft.
Tung Hai	355	04	127		C	W	ex-Chinese.
Tung On	463	06	150 x 29		C	S	Siamese.
Tung Tai	559	15	150 x 25		C	S	Siamese.
Tsuruga Maru	301	38	109 x 24		M	W	
Uji Maru	872	40	185 x 31	10	M	S	XYN.
Ukushima Maru	521	22				S	
Ume Maru	415	32	145 x 26		M	S	Government requisition; machinery aft.
Unkai Maru:							
#10	855	39	185 x 31 x 5.5(L) 15.5(E).	9 or 10	C	S	XPG #32; gunboat.
Unkai Maru—Con.							
#13	745	24	180 x 32 x 6.3(L) 13.0(E).	9 or 8	C	S	AK 463; machinery aft.
Unyu Maru	487	37	162 x 27		M	S	Machinery aft; government requisition.
Urakaze Maru	298	17	122		C	W	Government requisition.
Urara Maru	408	34	151 x 26		M	S	Minelayer.
Ushio Maru	749	17	182	8	C	S	AK 477; government requisition; may be known as Showa Maru.
Verdun	324	16	131 x 25		C	S	ex-French.
Victoria	228	01	130 x 25		C	S	Siamese; submarine signalling apparatus.
Wada Maru #26	258	39	108 x 26		M	W	
Wahei Maru	225	11	124 x 21		C	S	May be known as Wahei Maru #6.
Wakamatsu Maru:							
#1	232	31	125 x 23		M	S	Machinery aft.
#2	232	31	125 x 23	10	M	S	AK 221.
Wakamiya Maru	548	37	145 x 26 x 12.5	9 or 10	M	S	XYN; machinery aft.
Wanhsien	868	22	204 x 33		O/F	S	ex-Chinese; Yangtze River Service.
Wanhu Maru	333	17	136			S	
Yachiyo Maru	271	37	130 x 23		M	S	XAM.
Yamato Maru #3	534	36	147 x 25 x 12	8.5	M	S	Government requisition.
Yanawai	434	37	159 (oa) x 28		M	S	ex-British; machinery aft.
Yashima Maru	946	15				S	To be renamed Miyajima Maru.
Yasuta Maru #8	261	38	106 x 26		M	S or W	
Yayoi Maru	496	35	165 x 27 x 12.5	12	M	S	Machinery aft.
Ying Chun	414	94	165 x 20		C	S	Chinese sloop.
Yiu Lee	494	13	144 x 22		C	S	Chinese.
Yoneyama Maru	584	20	171 x 26 x 13.5	8	C	S	Government requisition.
Yorihime Maru	526	35	155 x 28 x 12	9	M	S	AK 205; machinery aft.
Yoshi Maru #3	200	40	94 x 23		M	W	
Yoshitomo Maru:							
#11	261	31	120 x 22 x 10		M	S	
#16	323	35	120 x 23		M	S	May be known as Ryoyu Maru #16.
#21	389	37	136 x 24		M	S	May be known as Ryoyu Maru #21.

FREIGHTERS—Continued

Name	Gross tons	Year built	Dimensions (ft.)	Speed (kts.)	Propulsion	Material	Remarks
Yoshitomo Maru—Continued.							
#22	392	38	136 x 24	10	-----	S	AK 623; may be known as Ryoyu Maru #22.
#23	393	38	136 x 24	10	M	S	AK 739.
#26	449	38	142 x 24	------	M	S	AK 695; may be known as Ryoyu Maru #26.
#27	449	39	142 x 24	10	M	S	AK 695; may be known as Ryoyu Maru #26.
Yoshiura Maru	541	11	169 x 26.5 x 15	8.5	C	S	
Yoshu Maru	499	13	171 x 22 x 15	8.5	C	S	
Yoshun Maru	496	35	165 x 27	------	M	S	Machinery aft.
Yoji Maru	413	30	160 x 29	------	-----	S	
Yuet Shang	704	19	175 x 28	------	M	W	ex-Chinese.
Yumihari Maru	977	94	221 x 32 x 14	8	C	S	Reported wrecked, 1940; believed salvaged and in commission.
Yung Hung	556	25	----------	------	M	S	ex-Italian; Yangtze River Service.
Yung Kia	883	03	203 x 37	------	C	S	ex-Chinese; sloop; seized by Japanese, 1937.
Yung Lee	632	06	171 x 24	------	C	S	ex-Chinese.
Yung Shen	277	07	122 x 26	------	C	S	ex-British; may be known as Yung Shun.
Yung Ting	311	99	115 x 21	------	C	S	ex-British.
Yung Wei	972	64	219 x 28	------	C	I	ex-Chinese.
Yunghsing	832	15	185 x 31	------	C	S	ex-Chinese.
Yusei Maru	600	37	159 x 30	------	M	S	
Zamboanga	215	07	112 x 18	------	C	S	ex-U. S.; ex-Ebishu Maru.
Zuho Maru #2	200	39	95	------	M	W	May be known as Juho Maru #2.
Zuiho Maru	222	38	115 x 20	9.5	M	W	Transport; also reported as fishing, government requisition.
Zuisho Maru	534	39	156 x 28.5 x 12.5	10 or 9	M	S	XYN.
Zuisho Maru	245	39	115 x 22	8.5	M	W	Refrigeration machinery; also reported as fish transport.
Zuiun Maru	243	39	115 x 22	9	M	W	Refrigeration machinery; also reported as fish transport.

TANKERS (includes naval conversions—XAO)

Name	Gross tons	Year built	Dimensions (ft.)	Speed (kts.)	Propulsion	Material	Remarks
Asiatica	318	09	175	------	M	S	ex-British; barge.
Chidori Maru	130	12	85 x 18	7	-----	S	XAO 415; sloop.
Fukuei Maru #12	266	37	120 x 22 x 8	10.5	M	S	XAO; machinery aft.
Hadachi	999	36	281 x 33 x 16	10.5 or 11	M	S	XAO; machinery aft; may be known as Hanedati Maru.
Halaban Maru	682	97	186 x 26 x 10.2	8 or 10.5	O/F	S	XAO; machinery aft; may be known as Haraban Maru.
Hinode Maru	321	30	145 x 28	------	M	S	Machinery aft; lighter.
Hishi Maru	492	31	159 x 27	------	M	S	Machinery aft; government requisition.
Hishi Maru #2	857	36	190 x 33 x 14	11	M	S	XAO.
Horei Maru	658	20	182 x 28	8	C	S	Machinery aft.
Hunagawa Maru	868	29	185 x 30 x 14.5	9.5	C	S	Machinery aft.
Juko Maru	478	38	156 x 25	------	M	S	ex-Kamikaze Maru; machinery aft; government requisition.
Kilat	221	30	126 x 24	------	M	S	ex-Dutch; scuttled 1942.
Koan Maru	885	37	187 x 30 x 14.5	------	C	S	XAO; machinery aft.
Koryu Maru	974	44	210 x 33.5 x 15.5	------	C	S	Standard Type TS.
Koshin Maru	975	44	210 x 33.5 x 15.5	------	C	S	Standard Type TS.
Koshin Maru	420	39	142 x 26	9.5	M	S	
Kotai Maru	975	44	210 x 33.5 x 15.5	10	C	S	Standard Type TS.
Kulit	213	30	127 x 24	------	M	S	ex-British; machinery aft.
Kyoei Maru	603	37	176 x 30 x 11(L) 5.3(E)	10(L) 11.5(E)	M	S	Machinery aft; government requisition.
Kyoei Maru							
#3	1,189	44	210 x 33.5 x 15.5	10	C	S	Standard Type TS.
#5	1,186	44	210 x 33.5 x 15.5	10	C	S	Standard Type TS.
#6	1,178	44	210 x 33.5 x 15.5	10	C	S	Standard Type TS.
#7	1,160	44	210 x 33.5 x 15.5	10	C	S	Standard Type TS.
Kyoryoku Maru	1,009	44	210 x 33.5 x 15.5	10	C	S	Standard Type TS.
Mei Foo	913	12	----------	------	-----	-----	ex-U. S.-Yangtze River Service.
Mei Lu	305	26	----------	------	M	-----	ex-U. S.-Yangtze River Service.
Mei Nan	364	18	----------	------	-----	-----	ex-U. S.-Yangtze River Service.
Nagata Maru #28	670	15	182 x 29 x 6.7 (E) 13 (L)	8 or 9	C	S	XAO 763; machinery aft.
Naniwa Maru	46	26	72 x 16	------	M	S	XAO? Barge; machinery aft.

TANKERS (includes naval conversions—XAO)—Continued

Name	Gross tons	Year built	Dimensions (ft.)	Speed (kts.)	Propulsion	Material	Remarks
Nippon Maru:							
#5	140	31	90 x 19	8	M	S	XAO 241.
#11	195	36	105 x 22	8	M	S	XAO 163.
#15	486	37	150 x 29 x 12	------	M	S	
Nonai Maru	374	29	139 x 10	------	M	S	Machinery aft.
Pegasus Maru	224	31	121 x 22	------	M	S	Machinery aft; may be known as Pegsasu Maru.
Phasianella Maru	855	29	180	------	M	S	British; machinery aft; scuttled 1942.
Ribot	237	30	127	------	M	S	British.
Seiko Maru	242	35	117 x 21 x11	10 or 8	M	S	
Seiko Maru #2	479	38	158 x 26	------	M	S	Government requisition.
Shohei Maru	120	30	87 x 18	7	M	S	XAO 723.
Shonan Maru	1,029	44	210 x 33.5 x 15.5	10	C	S	Standard Type TS.
Shu Kwang	788	24	199 x 33 x 8.6	------	O/F	S	ex-British.
Sumatra	984	94	200 x 30.6	------	-----	S	Sunk, salvaged, converted to oil storage ship; British.
Takasago Maru	1,116	44	210 x 33.5 x 15.5	10	C	S	Standard Type TS.
Takatori Maru:							
#1	879	28	195 x 31 x 9.5 (E) 15 (L)	10	C	S	XAO–AK; machinery aft.
#2	521	31	170 x 27 x 9.5 (E) 11 (L)	12 or 10	M	S	XAO 813; machinery aft.
#3	254	34	125 x 22 x 8.5	12	M	S	Machinery aft; government requisition.
Tembusu	344	39	136 x 29	------	M	S	ex-Dutch; machinery aft.
Tokyo Maru	902	37	198 x 30 x 6.5 (E), 14.5 (L).	------	M	S	XAO; machinery aft.
Tosei Maru #2	507	40	155 x 25	------	M	S	Machinery aft.
Unyu Maru #2	635	39	177 x 30 x 5.3	7	M	S	XAO, AK 489.
Wu Kiang	108	12	80 x 19	------	M	S	ex-British motor barge.

FISHING BOATS OVER 100 GROSS TONS

Name	Gross tons	Year built	Dimensions (ft.)	Speed (kts.)	Propulsion	Material	Remarks
Akebono Maru	111	06	91.3 x 18	9.5	C	S	Government requisition; cutter whaler.
Amatomi Maru	109	07	92.3 x 18		C	S	Whaler.
Aomori Maru	186	35	103.3 x 22	8.5	M	S	Refrigeration machinery; fishing regulation.
Asakaze Maru	124	28	100 x 19	9.5	M	S	
Ataka Maru	275	21	123 x 22	10	C	S	Government requisition; AM; trawler.
Ayukawa Maru	198	25	112 x 20	9	C	S	Government requisition; whaler.
Azuchi Maru	398	30	159 x 24	10.5	M	S	Government requisition; trawler - transport; also known as AF, 1942.
Banshu Maru:							
#5	390	33	135 x 25	8	M	S	Government requisition; transport; fishing mother ship.
#7	133	22	94.9		M	S	
#9	125	22	95 x 17		M	S	Auxiliary sail.
#12	188	29	111 x 20	9	M	S	Refrigeration machinery; fish carrier; government requisition.
#13	363	34	135 x 25	9	M	S	Machinery aft; cruiser stern; fish carrier; refrigeration machinery; ex-#89.
#15	363	34	135 x 25	9	M	S	Machinery aft; cruiser stern; refrigeration machinery; known also as #89.
#16	122	22	95 x 16		M	S	Government requisition.
#18	264	22	111.7 x 22	8.5	C	S	Refrigeration machinery; fish carrier.
#19	127	23	92 x 16		M	S	Refrigeration machinery; fish carrier; govt. requisition.

Name	Gross tons	Year built	Dimensions (ft.)	Speed (kts.)	Propulsion	Material	Remarks
Banshu Maru—Con.							
#21	128	23	92 x 16		M	S	Refrigeration machinery; fish carrier.
#22	142	23	98 x 17		M	S	Refrigeration machinery; fish carrier.
#51	234	21	122 x 23	10		S	Trawler; government requisition.
#52	234	21	122 x 23	9		S	Trawler; government requisition.
#53	267	20	123 x 22	10	C	S	XPC-trawler; machinery aft; government requisition.
#55	267	20	123 x 22	10	C	S	Trawler; machinery aft; government requisition.
#56	267	20	123 x 22	10	C	S	Machinery aft; government requisition; XAM.
Chihaya Maru	219	20	118 x 22	9	C	S	Trawler; government requisition.
Chikushi Maru	220	20	118 x 22	10	C	S	Trawler; government requisition; also known as Tukusi Maru.
Chishima Maru	123	13	95 x 18		C	W	Fishing.
Choei Maru #27	121	32	88 x 19			S	
Chokai Maru	136	36	97 x 20			S	
Daihakusan Maru	474	12	163 x 22	8	C	S	Trawler; government requisition; ketch.
Ebon Maru	198	33	100 x 21			S	
Eifu Maru							Government requisition.
Etorofu Maru	207	12	106.5 x 21	9.5	C	S	Machinery aft; ketch whaler; government requisition.
Fukae Maru	160	98	105.5 x 21		C	I	Ketch trawler.
Fukkyu Maru #1	152	18	98 x 18			S	
Fukuichi Maru #5	150	33	93 x 19		M	S	Fish carrier.
Fukushima Maru	109	04	94.8 x 18	9	C	S	Refrigeration machinery; sloop whaler; XPC.
Fukushin Maru	155						
Fukutoku Maru #1	139	31	89 x 18		M	S	May be known as Fukutoku Maru.
Fukuyoshi Maru	119	38	83 x 18			W	
Fumi Maru	360	38	139.4 x 25	13	M	W	Machinery aft; cruiser stern; whaler; XPC.
Fumi Maru:							
#2	304	39	130 x 25		O/F	S	Cruiser stern; whaler; government requisition.
#3	369	40	142 x 25.5	11		S	#633.
Geiyo Maru	197	12	107 x 21	10	C	S	Machinery aft; whaler; XPC.
Gyofuku Maru	120	39	77 x 18			W	
Hagoromo Maru	312	20	123 x 22	10	C	S	XAM.
Hakata Maru:							
#1	272	20	123		C	S	Trawler.
#2	265	20	123		C	S	Trawler; government requisition.
#3	265	20	123		C	S	Trawler; government requisition.
#6	263	22	123 x 22	8.5	C	S	Trawler; XAM; also known as Haguro Maru #6.
#7	257	23	123 x 22	10	C	S	Trawler; XAM; also known as Haguro Maru #7.
Hakuho Maru	332	22	130 x 25	10	M	S	Fishing research.
Hakuo Maru	135	38	98 x 20		M	S	
Hakurei Maru	407	34	149.6 x 24	10	M	S	Trawler, Tpt.; government requisition, refrigeration machinery.
Hakuhun Maru #1	108	06	95.6 x 17	9.5	C	S	Whaler; government requisition.
Hatsutaka Maru	287	25	127.9 x 23	11	C	S	Fish carrier.
Hayama Maru	219	19	118 x 22	10	C	S	Trawler; government requisition.
Higashinippon Maru	143	38	98 x 19		M	S	XPP.
Himegami Maru	199	34	104.9 x 22		M	S	Refrigeration machinery; government requisition.
Himeshima Maru	274	27	130 x 23	9.5	C	S	Trawler; ketch; government requisition; refrigeration machinery.
Himeji Maru	472	33	168.5 x 25	10.5		S	Trawler; AK.
Hinode Maru	140	31	95 x 20		M	S	

FISHING BOATS OVER 100 GROSS TONS—Continued

Name	Gross tons	Year built	Dimensions (ft.)	Speed (kts.)	Propulsion	Material	Remarks
Hinode Maru:							
#8	118	39	90 x 18			W	
#12	220	20	120		C	S	Trawler.
#15	220	20	120 x 22	9.5	C	S	Trawler; government requisition.
#16	234	20	123 x 22	9.5	C	S	Trawler; government requisition.
#17	235	19	123 x 22	9	C	S	Trawler; XAM.
#18	235	20	123 x 22	9.5	C	S	Trawler; XAM.
#20	286	30	128 x 23 x 11.5	9.5	C	S	Trawler; XAM.
Hishun Maru	318	29	135 x 24	11		S	Fishing regulation.
Hiyoshi Maru #5	126	40	90 x 18			W	
Hoei Maru	219	19	118 x 22	10	C	S	Trawler; XAM.
Hogei Maru:							
#3	104	02	92 x 18	9	C	S	Sloop; whaler; government requisition.
Hokkai Maru	408	34	149.6 x 24	10	M	S	Trawler; refrigeration machinery; government requisition.
Hokkai Maru	200	05	119 x 18 x 11		C	W	Sloop.
Horai Maru	234	22	123		C	S	Trawler; government requisition.
Hozan Maru	482	18	139 x 31		M	W	3-masted schooner.
Izushima Maru	192	33	100 x 21		M	S	Schooner.
Kaiei Maru	199	34	105 x 22		M	S	Refrigeration machinery; government requisition.
Kaiho Maru #2	121	31	88 x 19		M	S	Fish transport.
Kaiko Maru	233	21	123 x 22	10	C	S	Trawler; government requisition.
Kaiko Maru	124	33	95 x 20		M	S	Auxiliary sail.
Kaiun Maru	133	29	85 x 19			S	
Kaiyo Maru	120	33	87.9 x 19		M	S	
Kaiyo Maru #1 GO	143	39	89 x 19		M	W	Trawler.
Kamo Maru	133	29	85 x 19			S	
Karumo Maru	234	23	130 x 21 x 9	9	C	S	Refrigeration machinery; fish carrier.
Kasuga Maru	219	20	118 x 22	9	C	S	Trawler.
Keinan Maru	316	28	135 x 24	10	O/F	S	Trawler; XAM; refrigeration machinery.
Kiku Maru	233	20	123 x 22 x 15.5	8.5	C	S	Trawler; government requisition.
Kinpo Maru #1	139	35	89 x 19		M	S	Small trawler-cargo ketch; may be known as Kinho Maru #10.
Kitakami Maru	498	38	164 x 27	10	M	S	Trawler; Tpt.; government requisition.
Kitami Maru	397	30	159 x 24	10	M	S	Trawler; government requisition.
Kochi Maru	200	38	109		M	S	Fishing research.
Koei Maru #10	111	37	90 x 17			W	
Kongo Maru #2 GO	216	22	118 x 22	10	C	S	Trawler; XAM; also known as Kongo Maru #2.
Kosei Maru							
Kotoshiro Maru #3	147	32	95 x 20		M	S	Government requisition.
Kurama Maru	233	21	123 x 22	8.5	C	S	Trawler; machinery aft; government requisition.
Kushiro Maru	398	27	135.4		M	S	Trawler; refrigeration machinery.
Kyo Maru:							
#1	340	37	133 x 27	12	O/F	S	Whaler; cruiser stern; XAM.
#2	340	38	133 x 27	12	O/F	S	Whaler; cruiser stern; XPC.
#3	341	38	133 x 27	12	O/F	S	Whaler; cruiser stern; XAM.
#5	341	38	133		O/F	S	Whaler; cruiser stern; government requisition.
#7	340	38	133 x 27	12	O/F	S	Whaler; XPC.
#8	340	38	133 x 27	12	O/F	S	Whaler; cruiser stern; XPC.
#10	340	38	133 x 27	12	O/F	S	Whaler; XPC.
#11	385	38	154.2 x 26	13.5	O/F	S	Whaler; cruiser stern; government requisition.

Name	Gross tons	Year built	Dimensions (ft.)	Speed (kts.)	Propulsion	Material	Remarks
Lien Yung	217	18	127.7 x 22.6	------	C	S	Chinese trawler; reported as research.
Mamiya Maru	398	30	145 x 24	10	M	S	Trawler.
Meiji Maru	214	12	118.2 x 20.6	10	C	S	Trawler; government requisition.
Meisho Maru	142	29	88 x 18	------	M	S	Trawler; XPP.
Mifuku Maru	161	35	98 x 20	------	M	S	XPP.
Minato Maru #2	224	12	118.2 x 20.6	10	C	S	Trawler; may be known as Milan Maru #2.
Minomo Maru	473	32	150 x 25	9	M	S	Trawler; tpt. may be known as Mitumo Maru; government requisition.
Misago Maru	154	31	110	10.5	-----	W	Fishing control and research.
#1	265	20	123 x 22	9	C	S	Trawler; XAM.
#2	265	20	123 x 22	9	C	S	Trawler; also reported as XPC.
#3	267	21	123 x 22	9	C	S	Trawler; XAM.
#8	281	22	123 x 22	9	C	S	Trawler; XAM.
Musashi Maru	227	20	118 x 22	10	C	S	Trawler; machinery aft; XAM.
Nagato Maru	279	36	126 x 24	11.5	O/F	S	Whaler; cruiser stern; XPC.
Naruo Maru	216	22	118	8.5	C	S	Trawler; XAM.
Nippo Maru	381	17	122 x 27	------	C (aux.)	W	Schooner.
Noshiro Maru #2 GO	216	23	118 x 22	10	C	S	Trawler; XAM; also known as Nosiro Maru #2.
Nunobiki Maru	219	20	118 x 22	8.5	C	S	Trawler.
Oi Maru #2	498	38	164 x 27	10	M	S	Trawler; cruiser stern Tpt.; refrigeration machinery.
Otowa Maru	220	20	118 x 22	10	C	S	Trawler; XAM; also known as Otoba Maru.
Ponapo Maru	-----	-----	----------	------	-----	-----	XPP.
Ranzan Maru	219	20	118 x 22	10	C	S	Trawler; XAM; also known as Arasiyama Maru.
Reisui Maru	219	20	118 x 22	8.5	C	S	Trawler; XAM.
Rekkusa Maru	108	02	95.2	8.5	C	S	Sloop; whaler; government requisition; also known as Rex Maru.
Rikuzen Maru	221	20	118 x 22	10	C	S	Trawler; XAM; machinery aft.
Rokko Maru	225	19	118 x 22	10	-----	S	Trawler; XAM; also known as Rokuko Maru.
Rumoe Maru	220	20	118 x 22	9	C	S	Trawler; XAM; government requisition.
Ryojun Maru	123	26	100 x 19	8	-----	S	
Santoku Maru #2	146	31	95 x 20	------	M	S	XPP.
Sanyo Maru	281	35	120 x 23	9	M	S	Cruiser stern; fish carrier.
Sanyo Maru	185	37	110 x 22	10	-----	S	Fishing research vessel
Sapporo Maru	400	30	159 x 24	10	M	S	Trawler; government requisition.
Sasayama Maru #15	116	37	88 x 18	------	C	W	Fish carrier.
Sasshu Maru	261	33	118 x 23	------	M	S	Refrigeration machinery; machinery aft.
Sazanami Maru	107	06	96 x 18	9	C	S	Whaler.
Seisho Maru	128	84	88 x 19	------	-----	W	XPP 301; auxiliary fishing ketch.
Seiun Maru #5	146	38	93 x 19	------	-----	W	
Seki Maru	298	37	129 x 24	12	M	S	Whaler; XAM.
Seki Maru #2	360	38	139 x 25	13	M	S	Whaler; XPC; machinery aft; cruiser stern.
Seki Maru #3	304	38	130.1 x 25	------	O/F	S	Whaler; XAM; cruiser stern.
Shikotan Maru	207	12	106 x 21	9	C	S	Whaler; ketch; machinery aft; government requisition.
Shinko Maru #1	129	37	91 x 19	------	-----	W	Reported as XPG.
Shinko Maru #3	121	------	----------	------	-----	-----	
Shinko Maru #8	120	38	90 x 18	------	-----	W	
Shinyo Maru	235	37	117 x 23	10	M (aux.)	S	Fishing training vessel; ketch.
Shiratori Maru	270	35	120 x 24	9.5	M	S	Fishing Regulation; cruiser stern; refrigeration machinery.

FISHING BOATS OVER 100 GROSS TONS—Continued

Name	Gross tons	Year built	Dimensions (ft.)	Speed (kts.)	Propulsion	Material	Remarks
Shoei Maru #8 GO	125	37	88 x 16			W	
Shonan Maru	417	31	151 x 27	10.5		S	Fishing control and research; government requisition.
Shonan Maru:							
#1	350	38	133 x 27	12.5	O/F	S	Whaler; cruiser stern; XPC.
#2	350	38	133 x 27	12.5	O/F	S	Whaler; cruiser stern; machinery aft; XPC.
#3	350	38	133 x 27	12.5	O/F	S	Whaler; cruiser stern; machinery aft; XPC.
#5	350	38	133 x 24	12.5	O/F	S	Whaler; cruiser stern; machinery aft; XPC.
#6	356	38	133 x 27	12.5	O/F	S	Whaler; cruiser stern. machinery aft; XPC;
#7	356	38	133 x 27	12	O/F	S	Whaler; cruiser stern; machinery aft; XPC.
#8	355	38	133 x 27	12.5	O/F	S	Whaler; cruiser stern; machinery aft; XPC.
#10	350	38	133 x 27	12.5	O/F	S	Whaler; cruiser stern; machinery aft; government requisition.
#11	350	38	133 x 27	12.5	O/F	S	Whaler; cruiser stern; machinery aft; XPC.
#12	355	39	134 x 27	12.5	C	S	Whaler; machinery aft; cruiser stern; XPC.
#15	355	39	134 x 27	12.5	C	S	Whaler; machinery aft; cruiser stern; XPC.
#16	355	40	133 x 27		C	S	Whaler; XAM.
#17	356	40	133 x 26		C	S	Whaler; XPC.
Showa Maru	187	28	104 x 21	10	C	S	Whaler; XPC.
Showa Maru:							
#2	194	30	108 x 22	11	C	S	Whaler; XPC 243: cruiser stern.
#3	224	26	114 x 23	9	C	S	Whaler; XPC #632 or #554.
#5	220	24	111 x 23	10	C	S	Whaler; XPC.
#6	217	25	111 x 22	11	C	S	Whaler; XPC 261.
#7	264	36	124 x 24	12	C	S	Whaler; XAM; machinery aft.
#8	264	36	124 x 24	12	C	S	Whaler; XAM; machinery aft.
#10	264	36	124 x 24	12	C	S	Whaler; XAM; cruiser stern; machinery aft.
Shunkotsu Maru	531	28	155 x 29	11		S	
Soga Maru	247	20	120 x 22		C	S	Trawler.
Sonobe Maru	220	20	118 x 22	8.5	C	S	Trawler; XAM.
Soyo Maru	202	25	112 x 21	8.5		S	Fishing Regulation.
Suiten Maru	131	34	89 x 19		M (aux.)	S	Auxiliary ketch.
Sumiyoshi Maru	114	34	92 x 19	8	C	S	Fish carrier; government requisition.
Suruga Maru	992	38	204 x 35	10	M	S	Trawler; Tpt.; cruiser stern; refrigeration machinery.
Suwa Maru	112	07	95.3 x 18	8.7	O	S	Sloop; whaler; government requisition.
Taihei Maru	135	38	97.8 x 19.5		M	S	
#1	107	04	94 x 18	9	O	S	Sloop; whaler; government requisition.
#2	117	02	94.7 x 18		O	S	Sloop; whaler, government requisition.
Taihei Maru #1 GO	109	28	84 x 18		M	S	Fish carrier; may also be known as Taihei Maru.
Taito Maru	110	07	98.2 x 18	9	O	S	Whaler; sloop; XPC; also known as Taisoku Maru #1 GO.
Taiyo Maru	671	35	175.5 x 31	10	M	S	Trawler; refrigeration machinery; government requisition.
Taiyo Maru	183	38	97 x 20			W	
Takao Maru	220	20	118 x 22	8.5	C	S	Trawler; XAM.
Takasago Maru	275	21	123 x 22	10	C	S	Trawler; XAM.
Takasu Maru	126	23	85 x 19		M (aux.)		
Takenoura	116	32	84 x 19		M (aux.)	S	Auxiliary fishing ketch; also known as Takeura Maru.
Takunan Maru	156	36	101 x 20	8.5		W	Fish carrier; #259.
Takunan Maru:							
#1	343	37	135 x 27	12	O	S	Whaler; XAM; machinery aft; cruiser stern.
#2	343	37	135 x 27	12.5	O	S	Whaler; XPC or XAM; machinery aft.
#3	343	37	135 x 27	12.5	O	S	Whaler; XAM; machinery aft; cruiser stern.
#5	343	37	135 x 27	12.5	O	S	Whaler; XPC or XAM; machinery aft; cruiser stern.
#6	343	37	135 x 27	12.5	O	S	Whaler; XPC or XAM; machinery aft; cruiser stern.

Name	Gross tons	Year built	Dimensions (ft.)	Speed (kts.)	Propulsion	Material	Remarks
Takunan Maru—Con.							
#7	343	37	135 x 27	12.5	C	S	Whaler; XPC or XAM; machinery aft; cruiser stern.
#8	343	37	135 x 27	12.5	C	S	Whaler; XPC or XAM; machinery aft; cruiser stern.
#10	343	37	135 x 27	12.5	C	S	Whaler; XPC or XAM; machinery aft; cruiser stern.
Tama Maru	264	36	120 x 24	12	O/F	S	Whaler; reported as XAM; cruiser stern.
Tama Maru:							
#2	264	36	120 x 24	12	O/F	S	Whaler; cruiser stern; government requisition.
#3	258	36	120 x 24	12	O/F	S	Whaler; XAO; minesweeper; government requisition.
#5	258	36	120 x 24	12	O/F	S	Whaler; XAM.
#6	275	36	126 x 24	12	O/F	S	Whaler; XAM; cruiser stern.
#7	275	36	126 x 24	11	O/F	S	Whaler; XAM; cruiser stern.
#8	279	36	126 x 24	11	O/F	S	Whaler; XPC; cruiser stern.
Tamasono Maru:							
#1	313	20	125 x 23	10	C	S	Trawler; XAM.
#2	316	20	125 x 23	10	C	S	Trawler; XAM.
#3	316	20	125 x 23	------	C	S	Trawler; XAM.
Tamura Maru	235	20	123 x 22	10	C	S	Trawler; XAM.
Tenkyo Maru	189	14	110 x 19 x 11	------	C	W	Sloop.
Tenyo Maru #2 GO	658	35	175.5 x 31	10	M	S	Trawler; XAP; refrigeration machinery.
Terukaze Maru	257	36	131 x 24	11	M	S	Fishery patrol; machinery aft; cruiser stern; refrigeration machinery.
Teshio Maru	398	30	159 x 24 x 12.5	10.5	M	S	Trawler; XAP.
Togo Maru:							
#1	107	06	91 x 18	10	C	S	Whaler; sloop; government requisition.
#2	111	02	94.8 x 18	8	C	S	Whaler; sloop; government requisition.

Name	Gross tons	Year built	Dimensions (ft.)	Speed (kts.)	Propulsion	Material	Remarks
Tokiwa Maru	221	20	118 x 22	9	C	S	Trawler; government requisition.
Toko Maru #2 GO	407	34	150 x 24	10	M	S	Trawler; refrigeration machinery; T p t.; government requisition; also known as Astoko Maru #2 GO.
Torishima Maru	268	22	125 x 23	8.5	C	S	Trawler; XAM.
Toryu Maru	197	01	110 x 21	------	C	S	Trawler; ketch.
Toshi Maru	294	37	126 x 24	10.5	O/F	S	Whaler; XAM.
Toshi Maru:							
#2	294	37	126 x 24	10	O/F	S	Whaler; XAM.
#3	299	37	126 x 24	12	O/F	S	Whaler; XPC; cruiser stern.
#5	299	37	126 x 24	12	O/F	S	Whaler; XAM; cruiser stern.
#7	298	37	126 x 24	10	O/F	S	Whaler; XAM; Machinery aft; cruiser stern.
#8	298	37	126 x 24	10	O/F	S	Whaler; XAM; Machinery aft; cruiser stern.
Toyo Maru #9	----	----	----	----	----	----	Reported as XPP.
Ujina Maru	227	20	118 x 22	8.5	C	S	Trawler.
Urashima Maru	199	25	100 x 20 x 10.5	8	M	S	Fish carrier.
Uruppu Maru	224	26	112 x 22	8.5	----	S	Seal protection.
Wakakusa Maru	220	20	118 x 22	10	C	S	Trawler; government requisition.
Wako Maru	136	30	109.6 x 19	------	M	W	
Yachiyo Maru #3	150	34	95 x 19.5	------	M	S	Trawler; XPP.
Yatsushiro Maru	398	30	159 x 24	10	M	S	Trawler; government requisition; also known as Yasiro Maru.
Yawata Maru	267	22	123 x 22	10	C	S	Trawler; government requisition.
Yoshino Maru	220	20	118 x 22	8.5	C	S	Trawler; XAM.
Yuki Maru	389	29	135.4 x 24	------	M	S	Trawler.
Zuiyo Maru	130	37	103 x 18	12	M	S	Fishing patrol; government requisition.

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